West Chester State College

BULLETIN

GRADUATE ANNOUNCEMENT

1962-63

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CONTENTS

This bulletin is designed to acquaint prospective graduate students with all information pertinent to the program. Information has been arranged in the order in which questions are normally asked. By checking the table of contents below, the reader should be able to find answers to all major questions.

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THE GRADUATE PROGRAM AT WEST CHESTER

On January 8, 1959, the State Council of Education of the Commonwealth of Pennsylvania formally authorized the West Chester State College to inaugurate a program of graduate studies after September 1, 1959. The Graduate Program at West Chester, therefore, was initiated with the opening of the fall semester, 1959.

The degree awarded upon successful completion of all requirements is Master of Education. Because requirements, of necessity, vary from one department to another, the student should check carefully the requirements listed under the department in which he is interested.

The West Chester State College is fully accredited by the Middle States Association of Colleges and Secondary Schools; the National Council of Accreditation of Teacher Education; the National Association of Schools of Music; and the American Association for Health, Physical Education and Recreation.

Any requests for information concerning admission to the Graduate Program should be directed to the Director of Graduate Studies. Additional bulletins and application forms will be sent upon request.

ADMINISTRATION

The Graduate Program is under the direction of the administrative officers of the College; the Academic Council of the College; the Graduate Committee; and the administrative officers of the Graduate Program.

The Graduate Committee performs the following functions: it establishes all major policies of the administration of the program; it reviews all applications for admission, requests for special consideration, and recommendations of the major departments; it acts as the Executive Council for the college administration on all matters related to the graduate program.

The administrative officers of the Graduate Program are the Director of Graduate Studies and the chairmen of the various departments. The chairman of each department is the administrative officer of the Graduate Program for the work of his department. The faculty advisers in the Graduate Program function directly under their respective department chairmen. Graduate students having problems in their major field should consult first their advisers who, in turn, consult with the department chairman involved.

The personnel directly involved in administering the Graduate Program are:

Acting President ..... Earl F. Sykes, B.A., M.A., Ed.D.

Director of Graduate Studies ..... Thomas E. Berry, A.B., A.M., Ph.D.

Business Manager ..... Everett E. Shaefer, B.C.S., M.A.

CHAIRMEN OF DEPARTMENTS

Education ..... Harold W. Benda, B.A., M.A., Ed.D.

English ..... Kenneth C. Slagle, B.A., A.M., Ph.D.

Geography ..... Alvin S. Keinard, B.A., M.Ed., Ed.D.

Health and Physical Education ..... Russell L. Sturzebecker, B.S., M.Ed., Ed.D.

Mathematics ..... Albert E. Filano, B.S., M.S., Ph.D.

Music ..... Lloyd C. Mitchell, B.Mus., M.Mus., Ed.D.

Science ..... Robert B. Gordon, B.Sc., M.Sc., Ph.D.

Social Studies ..... Byron Y. Fleck, B.A., M.A., Ph.D.

OBJECTIVES

The specific objectives of the graduate program at West Chester are to increase the competency of teachers and educational workers in the area of elementary education, secondary education, music education, and health and physical education; to provide incentive to continue professional growth; and to enable the graduate student to assume greater responsibilities in his specific field.

More specifically, the objectives are as follows:

I. Areas of Specialization:
   - A. To provide an opportunity for advanced study in a given area of field of specialization.
   - B. To acquaint the student with basic research techniques and their use during his first year of graduate study.
   - C. To enable the student to further his knowledge of allied and complementary fields.
   - D. To provide a further understanding of the teaching and learning process.
   - E. To enable the student to carry on studies in campus laboratory situations.

II. The Area of General Education:
   - A. To afford the student an opportunity to pursue his individual interests in subject fields other than his field of specialization.
   - B. To enable the student to strengthen and enrich his competency in broad cultural area.
   - C. To develop an understanding of local, national, and international affairs as they relate to the functions of the school.

Because the entire graduate program at this college has been constructed to serve in-service teachers desiring to improve their professional competency, persons who want advanced degrees for other reasons should not apply.

ADMISSION REQUIREMENTS

As can be seen below, all applicants for admission fall into six categories. Because of this fact, admission requirements naturally vary.

Regardless of category the applicant for graduate work at West Chester should initiate his application procedure as early as possible by writing directly to the Director of Graduate Studies. He should then execute and return all forms as early as possible. The student applying for admission with advanced standing should produce all transcripts as early as possible.

I. *Applicants for Credit Work*

An applicant for credit work is one who desires to take courses for credit toward certification or for some other valid reason.

To be admitted to credit work the applicant must meet the following requirements:

(1) The applicant must hold a bachelor's degree from a college or university accredited by national and regional accrediting associations.

(2) The applicant must have an undergraduate quality point average of at least 2.5 on the basis of A=4.0, or he must be able to prove his academic competence in some other manner deemed appropriate by the Graduate Council. Generally, the Graduate Council will require applicants whose honor point average falls below 2.5 to make an acceptable grade in the Graduate Record Examination or some similar test.

(3) The applicant must evidence academic, personal and professional qualities deemed acceptable by the administrators of the graduate program and the department concerned.

(4) The applicant must be able to demonstrate clearly that he will be a stronger professional person for having pursued graduate work. Therefore, only professionally minded persons should apply for admission. Students admitted to credit work may later make application for degree candidacy by satisfying the requirements for the degree work program. In no case, however, will such students receive more than fifteen semester credits for work taken before the time of admission to candidacy. Application to pursue credit studies is subject to final approval by the Graduate Council.

II. *Conditional Admission*

A conditional admission applicant is (1) one whose record shows deficiencies in the requirements listed for degree studies or (2) one who claims the ability to satisfy the requirements but is unable to submit supporting evidence (transcripts, records, etc.) at the time of registration.

Applicants whose records show deficiencies (courses lacking average below 2.5, etc.) may be admitted conditionally by action of the Graduate Council under the conditions stated in points #2 and #3 under "Applicants for Degree Studies."

Applicants whose records show deficiencies (courses lacking average beow 2.5 etc.) may be admitted conditionally subject to final approval by the Graduate Committee. In no case may such conditional admission be extended beyond one semester, and in no case may credit for course work be awarded until all supporting evidence has been evaluated by the faculty concerned.

III. *Applicants for Degree Studies*

An applicant for degree studies is one who desires to earn a master's degree at this institution.

To be admitted to degree studies, the applicant must meet the requirements listed below at the time of initial application. If the initial application is approved, the student will be granted provisional approval to work toward the degree. Final approval to work toward the degree will be granted when the student is admitted to candidacy. To be admitted to candidacy, the student must make formal application sometime between the completion of six and fifteen semester credits.

Admission to candidacy will be given by the major department concerned after it (1) has examined the student's course work and the written statements of faculty members and/or (2) has required the student to pass a qualifying examination. Approval by the major department is subject to final approval by the Graduate Committee.

Initial requirements for admission to degree work follow:

(1) The applicant must hold a bachelor's degree from a college or university accredited by national and regional accrediting associations or by the appropriate accrediting agency.

(2) The applicant's undergraduate program must approximate that of this institution. If the applicant has undergraduate deficiencies, he may be admitted conditionally by action of the Graduate Committee, providing (a) the deficiencies do not total more than six semester hours; (b) the applicant must earn a grade of "B" or higher in the undergraduate courses which remove the deficiency; and (c) no graduate credit may be given for removing the deficiency.

(3) The applicant must have an undergraduate quality point average of at least 2.5, on the basis of A=4.0, or he must be able to provide his academic competence in some other manner deemed appropriate by the Graduate Council. Generally, the Graduate Council will require applicants whose honor point average fall below 2.5 to make an acceptable grade in the Graduate Record Examinations or some similar test.

(4) The applicant must evidence academic, personal and professional qualities deemed acceptable by the administrators of the graduate program and the department concerned.

(5) The applicant must be able to demonstrate clearly that he will be a stronger professional person for having pursued graduate work. Therefore, only professionally minded persons should apply for admission.

(6) The applicant may have had at least one year of full-time professional experience. In unusual cases, the Graduate Committee may waive this requirement.

IV. *Applicants for Advanced Standing*

An applicant for advanced standing is one who desires to transfer credits from another graduate school.

Such credits will be honored under the following conditions: (1) the credits must have been earned at an approved graduate school; (2) the maximum number may not exceed six; (3) the course grades must be at least "B"; (4) the courses involved must be essentially the same as graduate courses offered at this institution.

All requirements beyond the stipulated maximum of six semester credits must be satisfied at this institution.

V. *Special Students*

A special student is one whose case does not fall within any of the above categories. Instances of special students are: the student who is taking work for his own edification; the student who is undecided on his final goal; the student who is taking work to be transferred to another institution; the student who is taking courses for certification only.

Applications of special students are considered in terms of the individual case.

VI. *Auditors*

An auditor is one who, as the term implies, takes courses as a listener. He is not permitted to take any examinations. No credit of any type will be given for courses audited.

A student will be admitted as an auditor if the faculty of the graduate program are satisfied that his academic and professional backgrounds will enable him to pursue profitably the work of the desired course.

CREDIT BY TRANSFER

Applicants for admission with advanced standing may transfer a maximum of six semester credits from other approved graduate schools.

In the field of science, however, the student may earn as many as fifteen semester credits at other approved graduate schools. This exception in science is made in order that the student may take advantage of unusual courses or equipment at other approved graduate schools.

All transfer credits are subject to the following conditions:

1. The credits must fall within the stipulated six-year time limit noted under the heading of Residence Requirements.
2. The course grade must be at least B.
3. The courses involved must be essentially the same as those offered at this institution.

In no case will a transfer student be given credit towards satisfying any requirements other than course requirements. This statement means that students may not transfer credit for comprehensive examination Admission to Degree Candidacy or any other type of examination credit.

COURSE REQUIREMENTS

In order to obtain the degree of Master of Education, the student must complete a minimum of 30 semester hours of credit in the areas listed below. The student, however, should not think of the master's degree in terms of semester credits. He should think, rather, in terms of meeting the standards as established by the Graduate Committee and by his major department.

The requirements stated below are the broad general requirements established by the Graduate Committee. In addition to these requirements, each department has individual requirements. The student, therefore, should first familiarize himself with the requirements listed below. Then he should turn to the specific section in this bulletin which treats the requirements established by his major department.

Under a ruling of the State Council of Education, the student is required to take 12 semester credits in general or liberal education. These groups — the humanities, social sciences, the natural sciences — should be incorporated into the student's program with the advice and approval of the major department.

I. *Required Courses — All Curricula — 6 Semester Credits*

A.	Hum.	500	Seminar in the Humanities	2 s. c.
B.	Res.	500	Methods and Materials of Research (This course is Mus. 500, Elem. Ed. 500, Sec. Ed. 500, or H. Ed. 500)	2 s. c.
C.	Ed.	510	Educational Foundations	2 s. c.

II. *Area of Specialization — 18 - 24 Semester Credits*

A. Required courses in major field
B. Electives chosen under advisement

III. *Research*

A. Thesis or Research Report 1 - 3 s.c.
B. Supporting electives

Upon approval of the student's major department, the candidate for the master's degree may pursue a program of 34 semester credits in lieu of the research report or thesis programs stated above. However, if the major department approved a 34 hour program, it does so with the understanding that the student take certain courses which require specialized research papers.

COURSES REQUIRED IN ALL CURRICULA

As shown under the heading "Course Requirements," there are three courses required of all candidates for the master's degree: Methods and Materials of Research, Educational Foundations, Seminar in the Humanities. Descriptions of these courses follow:

Hu. 500 Seminar in the Humanities 2 s. c.

This is a composite course composed of three major fields of subject matter: (1) art and architecture, (2) music, (3) literature.

This material is closely correlated to show the relationship of the three fields to each other and to the central theme of a general philosophy connecting these fields to life. The instructors teaching this course develop specific material in concert to establish an over-all unity.

Ed. 500 — S.Ed. 500 — H.Ed. 500 — Mus. 500

Methods and Materials of Research 2 s. c.

A course designed to acquaint the student with the basic techniques and procedures in research. This course treats the major types of research and the methods for locating, evaluating, and interpreting evidence. It also includes the actual preparation of a research paper. This course is given by curriculum (elementary, secondary, music, health and physical education) in order to meet the needs of the specific fields.

Ed. 510 Educational Foundations 2 s. c.

The history of education; factual history integrated with educational philosophy and thought; the evolution of present day educational theories and issues from early times.

RESEARCH REPORT AND THESIS

Every student has the choice of doing a research report or a thesis. The research report or the thesis carries one, two, or three semester credits. The decision to do either a research report or a thesis is subject to the approval of the adviser who will consider the question on the basis of the student's needs.

The research report must be aimed at developing the student professionally in his major field. While the thesis must have the same basic aim, it is much more extensive and hence more demanding of the student's time and abilities.

The Graduate Committee has defined the research report and thesis as follows:

A *research report* is a written record of a scientific investigation to determine the facts of a condition; hence it is essentially a report on a problem. It demands of the researcher a knowledge of the techniques of research and scientific accuracy.

A *thesis* is the written account of an exhaustive research to support or refute a belief or a hypothesis. It differs from the research report in that it is more comprehensive, and more generally demanding of the writer's knowledge, skills, and general powers of scholarship.

The student who plans to work eventually toward a degree should make his decision early regarding the research report or thesis. In no case should he defer the matter until a late moment in his course work because the work involved in the report or thesis will undoubtedly extend over two or more semesters.

In thinking of the research report or thesis, the student should take special note of the three statements listed below. These statements represent official policy of the Graduate Committee regarding the research report or thesis.

1. The department concerned must approve the research report or thesis as a challenging, soundly executed professional task, worthy of master's level achievement.

2. A detailed outline of the research report or thesis must be approved by the Graduate Council before the student is authorized to begin his investigation.

3. The research report or thesis must be approved by the Department of English for language usage. The Department of English will serve as a reading committee only. In no case is the Department of English to be thought of as an editing committee.

The student must register his decision to do either a research report or a thesis at the completion of the course entitled Methods and Materials of Research. Thus the student's later selection of courses will be affected in part by his decision regarding this matter.

When the research report or thesis has been approved by the major department, it must be typed and bound in accordance with specifications established by the Graduate Committee. These specifications are on file in the offices of the department chairmen.

The student who submits a thesis in partial fulfillment of degree requirements must present three bound copies to the Division of Graduate Studies. One copy is retained by the Division of Graduate Studies, and the remaining copies are given to the college library and the major department. The student who submits a research report need present only a bound copy to his major department.

EDUCATION

The Department of Education offers professional courses for students of all curricula. In this capacity, it will offer the electives listed below.

For students majoring in elementary education, however, the Department of Education has constructed the specific curriculum which follows the general electives.

All students majoring in elementary education should consider the Department of Education as their major department. All elementary education majors will be assigned to an adviser in the Department of Education.

Electives		*Semester Credits*
Ed. 502	Principles of Curriculum Development in the Secondary Schools	2
Ed. 506	The Junior High School	2
Ed. 508	The Core Curriculum	2
Ed. 520	Comparative Education	2
Ed. 525	The Teacher and Administrative Leadership	2
Ed. 530	Selection and Effective Utilization of A-V Materials	2
Ed. 531	Creative Teaching	2
Ed. 535	Organization and Administration of the Audio-Visual Program	2
Ed. 540	In-Service Education Seminar	2
Ed. 550	Advanced Educational Psychology	2
Ed. 552	Personality and Mental Hygiene	2
Ed. 555	Educational Statistics	2
Ed. 556	Occupational, Educational, and Social Information in Guidance	2
Ed. 560*	Techniques in Guidance and Counselling	2
Ed. 562*	Organization and Administration of the Secondary School Guidance Program	2
Ed. 564*	Homeroom Guidance in the Junior High School	2
Ed. 565*	Supervising the Guidance Program	2
Ed. 566*	The Activity Program in the Secondary School	2
Ed. 570	Psychology of the Mentally Atypical Child	2
Ed. 576	Methods and Materials for Physically Atypical Children	2
Ed. 580	History and Philosophy of Education	2
Ed. 590	School Law	2

ELEMENTARY EDUCATION

The candidate for the master's degree with a major in elementary education must meet the general course requirements stated on page 7. In addition, he must meet specific requirements established by the Department of Education. All course requirements for the elementary education curriculum have been arranged in the outline form below. By following this outline, therefore, the student can satisfy general course requirements and Department of Education requirements.

		Semester Credits
I.	Area of General Education:	6-12
A.	*Required*:	4
	Hum. 500 Seminar in the Humanities	2
	Educ. 510 Educational Foundations	2
B.	*Electives*: (To be chosen under advisement)	2-8

* Courses so marked will serve to meet requirements for Certification in Guidance.

Semester Credits

II. *Area of Specialization: 18-24

A. *Required Courses*:

Group 1. (Degree Candidates whose undergraduate major was elementary education.)

Edu. 551	Seminar in Child Development and Behavior	2
Edu. 550	Advanced Educational Psychology	2
Edu. 501	Foundations of Reading Instruction	2
Edu. 517	Curriculum Problems in Elementary Education	2

Group 2. (Degree Candidates whose undergraduate major was *not* elementary education)

Edu. 551, 553	Seminar in Child Development and Behavior	2 to 4
Edu. 550	Advanced Educational Psychology	2
Edu. 501	Foundations of Reading Instruction	2
Edu. 511	Unit Teaching in the Elementary School	2
Edu. 513	Teaching in Communication Skills	2

* Candidates for the master's degree with a major in Elementary Education must meet the requirements for a Provisional Certificate in Pennsylvania, or its equivalent, before being admitted to degree candidacy.

Area II. Specialization

B. ELECTIVES

Group 1 All electives must be chosen under advisement. Degree candidates are advised to take a minimum of two courses from Group 1.

		Sem. Cr.
Art. 500	Art Activities at the Elementary School Level	2
Ed. 509	Social Studies Curriculum and Instruction	2
Eng. 544	Principles and Practices in Speech Improvement	2
Eng. 550	Literature for the Elementary School	2
Geo. 526	Advanced Conservation of Natural Resources	2
Geo. 543	Geography of South America	2
Geo. 544	Geography of Europe	2
H.E. 502	Elementary Physical Education Workshop	2
H.E. 540	School Health Problems	2
H.E. 542	Health Instruction in the Elementary School	2
Math 551	Curriculum and Research in Arithmetic	2
Mus 571	Keyboard Activities for the Classroom Teacher	2
Mus. 572	Vitalizing Music in the Elementary Grades	2
Mus. 574	Teaching of Music in the Elementary Grades	2
Sci. 523	Resource Materials in Elementary Science	2
Sci. 595	Elementary Science and Instruction	2

Group 2. All electives must be chosen under advisement. Degree candidates are advised to take a minimum of two courses from Group 2.

Ed. 505	Curriculum and Research in Language Arts	2
Ed. 515	Meeting Individual Needs of Elementary School Children	2
Ed. 517	Curriculum Problems in Elementary Education	2
Ed. 519	The Kindergarten-Primary School Program	2
Ed. 521	Analysis, Diagnosis and Correction of Reading Difficulties	2
Ed. 523	Elementary School Organization	2
Ed. 527	Audio-Visual Materials in the Elementary School Curriculum	2
Ed. 530	Selection and Effective Utilization of Audio-Visual Materials	2
Ed. 536	Supervision in the Improvement of Instruction	2
Ed. 537	Creative Expression in the Elementary School Curriculum	2
Ed. 555	Educational Statistics	2

Ed. 561 Guidance in the Elementary School 2
Ed. 563 Measurement and Evaluation in the Elementary School 2
Ed. 580 History and Philosophy of Education 2

C. Research: 8

Methods & Materials of Research (Edu. 500) 2
Master's Thesis or Research Project 1-3
Electives: 3-5
From three to five credits of supporting electives may be required.

ENGLISH

The candidate for the master's degree with a major in English must meet the general requirements as shown in the outline below, and he must meet the specific departmental course requirements as stated below the outline.

I *Required Courses — All Curricula — 6 Semester Credits*

A. Hum. 500 Seminar in the Humanities 2 s. c.
B. Res. 500 Methods and Materials of Research (This course is Mus. 500, Ed. 500, Sec. Ed. 500, or H.Ed. 500) 2 s. c.
C. Ed. 510 Educational Foundations 2 s. c.

II *Area of Specialization — 18 - 24 Semester Credits*

A. Required courses in major field
B. Electives chosen under advisement

III *Research*

A. Thesis or Research Report 1 - 3 s. c.
B. Supporting electives

Below are listed four groups of courses under the alphabetical headings A, B, C, D. Every major student must have a minimum of one course from each group, and he must have a minimum of eight-courses from these four groups. In addition, he must be prepared to take any course deemed necessary by his adviser.

Group A
502 History of the English Language
511 English Literary Criticism (1800-1920)
512 American Literary Criticism (1800-1920)
513 English Literary Movements
514 American Literary Movements

Group B
521 English Literature to Chaucer
522 Chaucer
523 Eighteenth Century Novel
524 British and Continental Short Story

Group C
531 Shakespeare's Predecessors in Drama
532 Advanced Shakespeare
533 Nineteenth Century Drama
534 Nineteenth Century American Prose

Group D
541 Greek and Roman Literature in Translation
542 French Literature in Translation
543 Advanced Problems in Public Speaking
544 Problems of Speech Correction

GEOGRAPHY

The candidate for the master's degree with a major in geography must meet the general requirements as shown in the outline below, and he must meet the specific departmental course requirements as stated below the outline.

I *Required Courses — All Curricula — 6 Semester Credits*

A. Hum. 500 Seminar in the Humanities 2 s. c.

B. Res. 500 Methods and Materials of Research (This course is Mus. 500, Ed. 500, Sec. Ed. 500, or H.Ed. 00) 2 s. c.

C. Ed. 510 Educational Foundations 2 s. c.

II *Area of Specialization — 18 - 24 Semester Credits*

A. Required courses in major field

B. Electives chosen under advisement

III *Research*

A. Thesis or Research Report 1 - 3 s. c.

B. Supporting electives

The candidate for the master's degree in geography must select a program of courses from the elective groups listed below. A minimum of two courses from groups I, II, III and the remaining courses necessary to fulfill the general requirements, must be chosen with the approval of the faculty adviser.

		Semester Credits
Group I.	*Earth Studies*	
500	Biogeography	2
501	Geomorphology	2
400	Regional Physiography of North America	2
502	Regional Climatology of the Continents	2
503	Advanced Cartography	2
Group II.	*Economic and Political Studies*	
520	Problems of Economic Geography	2
521	Agricultural Geography	2
420	Advanced Conservation of Natural Resources	2
421	The Geography of Regional and Urban Planning	2
522	Ethnic and Demographic Problems of Geography	2
523	Political Geography	
524	Modern Concepts in Global Geography	2
525	Geography in World History	2
Group III.	*Regional Studies*	
540	The Geography of the United States and its World Relations	2
541	The Geography of Canada	2
542	The Geography of Mexico and Middle America	2
543	The Geography of South America	2
544	The Geography of Europe (Excluding U.S.S.R.)	2
545	The Geography of Africa	2
546	The Geography of Asia (Excluding U.S.S.R.)	2
547	The Geography of the U.S.S.R.	2
548	The Geography of the Pacific Lands	2
Group IV.	*Special Studies on Geography*	
580	Graduate Seminar in Geography in Education	2
581	Graduate Seminar in Modern Philosophy of Geography	2
582	Methods and Materials of Geographic Research	2
583	Geography Field Course	2
480	Workshop in Geography	2

MATHEMATICS

The candidate for the master's degree with a major in mathematics must meet the general requirements as shown in the outline below, and he must meet the specific departmental course requirements as stated below the outline.

I *Required Courses — All Curricula — 6 Semester Credits*

A.	Hum.	500	Seminar in the Humanities	2 s. c.
B.	Res.	500	Methods and Materials of Research (This course is Mus 500, Ed. 500, Sec. Ed. 500, or H.Ed. 500)	2 s. c.
C.	Ed.	510	Educational Foundations	2 s. c.

II *Area of Specialization — 18 - 28 Semester Credits*

A. Required courses in major field

B. Electives chosen under advisement

III *Research*

*A. Thesis or Research Report 1 - 3 s. c.

B. Supporting electives

The candidate must select a program in consultation with his advisor. This program must include courses in each of the major areas of Algebra, Geometry, Analysis, and Statistics.

		Semester Credits
502	A Survey of Modern Mathematics	2
503	History of Mathematics	2
511	Higher Algebra	2
512	Theory of Numbers	2
513	Foundations of Algebra	2
523	Introduction to Mathematical Probability	2
524	Mathematical Statistics	2
531	Foundations of Geometry	2
532	Projective Geometry	2
541	Advanced Calculus I	2
542	Advanced Calculus II	2
543	Differential Equations	2
545	Introduction to the Theory of Functions of a Real Variable	2
547	Introduction to the Theory of Functions of a Complex Variable	2
550	Methods and Materials of Research in Mathematics Education	2
552	Seminar in Mathematics Education	2

* See page 8 "Course Requirements" thirty-four hour option.

SCIENCE

The master's degree program at this college is limited to the field of biological science. Candidates for the master's degree in this field must meet the general course requirements stated below. In addition, they must meet the requirements established by the Department of Science which are stated after the following outline:

I *Required Courses — All Curricula — 6 Semester Credits*

A.	Hum.	500	Seminar in the Humanities	2 s. c.
B.	Res.	500	Methods and Materials of Research (This course is Mus 500, Ed. 500, Sec. Ed. 500, or H.Ed. 500)	2 s. c.
C.	Ed.	510	Educational Foundations	2 s. c.

II *Area of Specialization — 18 - 24 Semester Credits*

A. Required courses in major field

B. Electives chosen under advisement

III *Research*

A. Thesis or Research Report 1 - 3 s. c.

B. Supporting electives

Minimum requirements to be met before admission to candidacy in the field of biological science are two semesters of college chemistry, two semester of college biology or general botany, and general zoology with laboratory experience in both plant science and animal science.

A program of graduate courses in biological science must be selected from the electives listed below. Credits for corresponding graduate courses from other colleges and universities are acceptable up to a total of fifteen semester hours in transfer according to the circumstances of the particular case.

Required			*Semester Credits*
Sci.	524	Experimental Biology	3
Sci.	525	Introduction to Biochemistry	3
Sci.	591	History of Biology	2
Electives			
Sci.	501	Introduction to Study of Fossils	3
Sci.	511	Systematic Botany	3
Sci.	512	Plant Growth	2
Sci.	514	Plant Pests and Diseases	3
Sci.	541	Economic Entomology	2
Sci.	542	Animal Ecology	3
Sci.	543	Freshwater Biology	3
Sci.	544	Vertebrate Dissection	3
* Sci.	545	Developmental Anatomy	2
* Sci.	561	Human Heredity	2
* Sci.	562	Physical Anthropology	2
* Sci.	571	Advanced Bacteriology	3
Sci.	572	General Cytology	3

* Recommended for graduate students in Health Education.

SOCIAL STUDIES

The candidate for the master's degree with a major in social studies must meet the requirements stated below.

I *Required Courses — All Curricula — 6 Semester Credits*

A. Hum. 500 Seminar in the Humanities 2 s. c.

B. Res. 500 Methods and Materials of Research (This course is Mus 500, Ed. 500, Sec. Ed. 500, or H.Ed. 500) 2 s. c.

C. Ed. 510 Educational Foundations 2 s. c.

II *Area of Specialization — 18 - 28 Semester Credits* *

A. Required courses in major field

B. Electives chosen under advisement

III *Research*

A. Thesis or Research Report 1 - 3 s. c.

B. Supporting electives

* See page 8 "Course Requirements" thirty-four hour option.

The candidate must complete a minimum of two courses from each of the three groups listed below. The remaining credits may then be chosen subject to the approval of the faculty adviser.

Group A

H.	510	Early American History	2
H.	511	Growth of the American Nation	2
H.	512	The United States as a World Power	2
H.	513	American Constitutional History	2
H.	514	Seminar in Recent American Diplomatic History	2

Group B

H.	520	Early European History	2
H.	521	Seventeenth, Eighteenth and Nineteenth Century Europe	2
H.	522	Twentieth Century Europe	2
H.	523	Contemporary World Affairs	2
H.	524	Cultures of the Non-Western World	2

Group C

H.	502	Methods and Materials for Teaching Social Studies	2
P.S.	531	Modern Political Thought	2
P.S.	532	Seminar in International Relations	2
E.	531	Comparative Economic Systems	2
E.	532	History of Economic Thought	2
S.	531	Social Pathology	2
S.	532	Historical Sociology	2

MUSIC EDUCATION

The candidate for the master's degree with a major in music education must meet the general course requirements as stated below. In addition, he must meet whatever requirements the Department of Music may feel necessary in his particular situation.

		Semester Credits
I.	*Area of General Education*	6-12
A.	Required	4
	Hum. 500 Seminar in the Humanities	2
	Educ. 500 Seminar in Educational Foundations	2
B.	Electives (To be chosen under advisement)	2- 8

		*Semester Credits**
II.	*Area of Specialization*	18 - 28
A.	Required Courses:	
	Section I — Music Education — Required	4
a.	Required Course:	
	Mus. 510 Current Trends in Music Education	2
b.	Required Elective Course (Select One)	
	Mus. 511 Administration of Public School Music	2
	Mus. 512 Music Education in the Secondary School	2
	Mus. 513 Music Education in the Elementary School	2
	Mus. 514 Pedagogy of Music Theory	2
	Mus. 515 Marching Band Techniques and Materials	2
	Mus. 516 Piano Pedagogy	2
	Mus. 517 String Pedagogy	2
	Mus. 518 Vocal Pedagogy	2
	Mus. 519 Mus. Appreciation in the General Music Program	2

* See page 8 "Course Requirements" thirty-four hour option.

Section II — Applied Music — Required 4

a. Keyboard:

Mus. 541-551	Advanced Piano or Organ	1 or 2
Mus. 546-9	Piano Ensemble and Master Class	2

b. Vocal:

Mus. 503	Advanced Choral Conducting	2
Mus. 531-5	Advanced Voice	1 or 2
Mus. 536-7	Vocal Ensemble and/or Chorus	1
Mus. 538-9	Opera Workshop	2

c. Instrumental:

Mus. 501-2	Advanced Class Instruction in Instruments	1
Mus. 504	Advanced Instrumental Conducting	2
Mus. 561-5	Advanced Instruments	1 or 2
Mus. 566-9	Ensemble and/or Orchestra Band	1

Section III — Structure and Organization of Music — Required 4
and/or

Section IV — Literature and History of Music 4

Courses for Section III:

Mus. 521	Advanced Counterpoint	2
Mus. 522	Advanced Composition and/or Orchestration	2
Mus. 523	Advanced Band Arranging	2

Courses for Section IV:

Mus. 505	Contemporary Music	2
Mus. 506	Instrumental Literature	2
Mus. 507	Vocal Literature	2
Mus. 508	Choral Literature	2
Mus. 509	Piano Literature	2
Mus. 524	String Literature	2
Mus. 525	Woodwind Literature	2
Mus. 526	Brass Literature	2
Mus. 527	History of the Opera	2

Section V — Required Elective from Section II or III or IV 2

B. Electives (offered as needed)

Music Education Students:

Mus. 581	Accompanying	2
Mus. 582	Form in Music	2
Mus. 583	Music in the Baroque Period	2
Mus. 584	Seminar in Piano Teaching and Teaching Materials	2
Mus. 585	String Literature and Pedagogy	2
Mus. 586-7	Vocal Diction	2 or 4
Mus. 588-9	Seminar in Music Education (each semester)	1 or 2

Elementary Education Students:

Mus. 572	Vitalizing Music in the Elementary Grades	2
Mus. 573	Keyboard Activities for the Classroom Teacher	2
Mus. 574	Teaching of Music Appreciation in the Elementary Grades	2

All Students:

Mus. 560	Study and Appreciation of the Opera	2
Mus. 571	Music Criticism and Aesthetics	2
Mus. 580	Music in National and International Affairs	2
Mus. 590	Study and Appreciation of the Symphony	2

Applied Music — Individual Lessons:

Mus. 520	Instrument	1
Mus. 530	Voice	1
Mus. 540	Piano	1
Mus. 550	Organ	1

C. Research 8*

Mus. 500	Methods and Materials of Research	2
	Master's Thesis or Research Project	1-3

Electives:

From three to five credits of supporting electives may be required .. 3-5

HEALTH AND PHYSICAL EDUCATION

All course requirements for the health and physical education curriculum have been arranged in the outline form below. By following this outline therefore, the student can satisfy general course requirements and Department of Health and Physical Education requirements.

I. Area of General Education — 12 s. c.

A. Required:

Hu. 500	Seminar in Humanities	2 s. c.
Ed. 510	Seminar in Educational Foundations	2 s. c.

B. Electives:

Eight semester hours to be chosen under advisement

II. Area of Specialization* — 18 - 22 s. c.

A. Required: — 6 s. c.

H.E. 550	Foundations and Principles of Health, Physical Education and Recreation	2 s. c.
H.E. 500	Methods and Materials of Research	2 s. c.
H.E. 591	Seminar in Health, Physical Education and Recreation	2 s. c.

B. Electives:* — 12 - 16 s. c.

To be taken as an adviser-planned program from these areas: (1) organization, administration and supervision; (2) programs, methods and evaluation; (3) health, applied physiology, adaptives and correctives; (4) intramural and interscholastic athletics; dance, gymnastics and aquatics; (5) safety education; and (6) recreation.

Electives:

H.E. 501	Advanced Rhythmical Foreign Gymnastics	2 s. c.
H.E. 502	Elementary Physical Education Workshop	2 s. c.
H.E. 503	Advanced Aquatics	2 s. c.
H.E. 504	Dance in Education	2 s. c.
H.E. 510	School and Community Recreation	2 s. c.
H.E. 511	Field Problems in Recreation	2 s. c.
H.E. 512	Outdoor Education Workshop	2 s. c.
H.E. 520	Advanced Coaching	2 s. c.
H.E. 521	Administration and Supervision of Interschool and Intramural Athletics	2 s. c.
H.E. 530	Physiological and Psychological Bases of Motor Activity	2 s. c.
H.E. 531	Adaptive Physical Education Workshop	2 s. c.
H.E. 540	School Health Problems	2 s. c.
H.E. 541	School-Community Health Education Workshop	3 s. c.

* See page 8 "Course Requirements" thirty-four hour option.

H.E. 550 Foundations and Principles of Health, Physical Education, and Recreation — 2 s. c.
H.E. 560 Contemporary Problems in Health, Physical Education, and Recreation — 2 s. c.
H.E. 561 Measurement and Evaluation in Health, Physical Education and Recreation — 2 s. c.
H.E. 562 Administrative and Supervisory Practices in Health, Physical Education and Recreation — 2 s. c.
H.E. 570 Curriculum Development in Health and Physical Education — 2 s. c.
H.E. 580 Contemporary Practices in Safety Education — 2 s. c.

C. Research:
Option I: Master's Thesis*
Option II: Research Project* — 1-3 s. c.

* From three to five credits of supporting electives may be required.

COURSE DESCRIPTIONS

EDUCATION

Ed. 502 *Secondary School Curriculum* — 2 s. c.
A survey of current practices and trends in reorganizing and reorienting the secondary school curriculum, with emphasis on the various integrating techniques. Particular attention will be given to the critical analysis and evaluation of the experimental results of such practices. Specific application will be made to each of the major subject matter areas.

Ed. 506 *The Junior High School* — 2 s. c.
The development, function, and philosophy of the early years of secondary school. A study of the curriculum, teaching assignments characteristics of pupils, and special problems of the junior high school.

Ed. 508 *The Core Curriculum* — 2 s. c.
The theory and philosophy underlying the core curriculum. A study of specific school core programs in secondary schools will be studied and evaluated.

Ed. 510 *Seminar in Educational Foundations* — 2 s. c.
The history of education; factual history integrated with educational philosophy and thought; the evolution of present day educational theories and issues from early times.
This is a required course for all curricula.

Ed. 511 *Unit Teaching in the Elementary School* — 2 s. h.
An introduction to the unit method of teaching and the integrated curriculum, with special emphasis on social studies, science, and health. Intended for those whose undergraduate work was *not* in elementary education; open to others by permission of the instructor. Prerequisites: Child Development and Educational Psychology, or their equivalents.

Ed. 513 *Teaching the Communication Skills* — 2 s. h.
An introduction to the teaching of language (oral and written) and arithmetic — content, methods, materials, and organization. Intended for those whose undergraduate work was *not* in elementary education; open to others by permission of the instructor. Prerequisites: Child Development and Educational Psychology, or their equivalents.

Ed. 515 *Meeting Individual Needs of Elementary School Children* 2 s. h.
An advanced course concerned with methods and materials for individualizing instruction in the subject and skill areas, and with meeting individual needs in personal adjustment. Prerequisite: undergraduate degree in elementary education, or all required courses in Group 2 under A, Area of Specialization.

Ed. 520 *Comparative Education* 2 s. c.
Major problems of education in a number of foreign countries in relation to similar problems in the United States. Attention is given to the reasons for the various patterns of education in terms of purposes and philosophies as they pertain to differences in organization and administration.

Ed. 525 *The Teacher and Administrative Leadership* 2 s. c.
A study of processes and methods of local leadership and participation by the classroom teacher, including an understanding of human relations. The relationship between the classroom teacher and other school personnel.

Ed. 528 *Production of Projected Still Materials* 2 s. c.
This course deals with the various techniques for producing materials for use on the overhead and opaque projectors. Laboratory fee.

Ed. 529 *Production of Non-Projected Materials* 2 s. c.
Techniques in the production and use of such teacher-prepared devices as bulletin boards, felt boards, magnetic boards, flip charts, etc.

Ed. 530 *Selection and Effective Utilization of Audio-Visual Materials* 2 s, c.
Concerns the approved methods of selecting audio-visual materials for maximum value to the curriculum as well as principles applied to efficient use of each of the major types of materials. (Pre-Basic A-V course).

Ed. 531 *Creative Teaching* 2 s. c.
Study of the nature and conditions associated with creativity along with skills and techniques most likely to result in the full development of the creative potential of the learner.

Ed. 532 *Photography for Teachers* 2 s. c.
Theories and practice in the field of still photography with particular emphasis on the production of photographic transparencies, including Polaroid photography. One unit of study deals with the production of motion pictures. Laboratory fee.

Ed. 533 *Television in Education* 2 s. c.
The nature of television and the educational use of commercial, Educational, and closed circuit television in the classroom.

Ed. 534 *Seminar in Instructional Materials* 2 s. c.
A workshop type course probing the problems in the use of the various instructional media and providing opportunity for investigating the values of community resources, teaching machines, etc. (Pre-Basic A-V course).

Ed. 535 *Organization and Administration of the Audio-Visual Program* 2 s. c.
Includes a study and analysis of the function of the school's audio-visual education program. The selection and evaluation of materials and equipment, unit costs, problems of developing and maintaining an efficient operation. (Pre-Basic A-V course).

Ed. 540 *In-Service Education Seminar* 2 s. c.
For teachers and supervisors who are interested in the many techniques, media and resources which can be utilized for in-service education programs. Study concerns the staff working together; preparation of curriculum materials; use of consultants; and community resources for organizing a school improvement program.

Ed. 550 *Advanced Educational Psychology* 2 s. c.
Intensive study of the processes by which skills, understandings, concepts and ideals are acquired; examination of teaching practices in relation to basic research on learning. A study of similarities and differences in learning theories. (Pre. — Educ. Psych.)

Ed. 552 *Personality and Mental Hygiene* 2 s. c.
This course emphasizes mental hygiene in teaching and the prevention and treatment of learning difficulties as they affect personality patterns.

Ed. 555 *Educational Statistics* 2 s. c.
A course dealing with sampling and reliability measures including methods of correlation. Applications stressed in design, execution and interpretation of the experimental studies in education. Orientation to statistical procedures in practical solution of educational problems. (Prerequisite: Tests and Measurements in Guidance or its equivalent).

Ed. 556 *Occupational, Educational and Social Information in Guidance* 2 s. c.
A course concerned with the numerous factors involved in occupational, educational, and social adjustments and how to secure, classify, analyze, interpret, evaluate these factors for intelligent use by teachers and guidance workers. Prerequisite: one course in psychology or guidance.

Ed. 560 *Techniques in Guidance and Counseling* 2 s. c.
Tools and techniques commonly used in diagnosis of data secured through observation, personal documents, rating devices and testing will be studied. The interview and theories of counseling, and applications of techniques to solution of pupil's problems. The importance of case studies will be stressed.

Ed. 562 *Organization and Administration of the Secondary School Guidance Program* 2 s. c.
A survey of the current literature in counseling and guidance. Problems involved in initiating, organization and developing guidance services. Types of organizations, staff, physical facilities, and administrative and faculty relationships will be considered.

Ed. 564 *Homeroom Guidance in the Junior High School* 2 s. c.
A course which assists the teacher in developing a guidance program related to homeroom grouping. Stresses social, educational and vocational guidance principles and practices.

Ed. 565 *Supervising the Guidance Program* 2 s. c.
The function of the individual charged with the responsibility of supervising the guidance program in a particular school system. A survey of the modern practices and principles for coordinating the guidance and counseling duties assigned to teachers. Individual and committee responsibilities in collecting and disseminating information.

Ed. 566 *The Activity Program in the Secondary School* 2 s. c.
A course dealing with the organization and development of an educationally sound activity program. A survey of the various types of activities and their function in the over-all school program. Emphasis is upon character building and leadership opportunities for students as well as the role the teacher plays in such a program.

Ed. 580 *History and Philosophy of Education* 2 s. c.
A study of the historic background and development of education and influences which important philosophies have had on educational problems in a democratic social order.

Ed. 590 *School Law* 2 s. c.
A course dealing with the legal background of educational organization in various states as it pertains to the role of the state itself, the intermediate and the local units. Particular attention will be paid to the legal status of the school board, the rights and privileges of the teacher, the board and the child. Much will be made of the case study technique.

Art 500 *Art Activities in the Elementary School* 2 s. c.
Formulating the art curriculum in the elementary school; organizing materials and procedures in keeping with contemporary trends in educational philosophy.

Ed. 500 *Methods and Materials of Research* 2 s. c.
An introduction to the basic principles of research in education with attention to types of research, techniques of gathering data, and the application of methods to specific types of research problems. The student will be introduced to research literature and typical research reports.

Ed. 501 *Foundations of Reading Instruction* 2 s. c.
An analysis of the modern methods of teaching children to read. Recent psychological findings in reading readiness, eye movement, and word perception phonics will be studied.

Ed. 505 *Curriculum and Research in Language Arts* 2 s. c.
Curriculum planning; modern teaching methods; instructional materials; recent research and its application in the classroom; English written and oral; spelling and handwriting.

Ed. 509 *Social Studies Curriculum and Instruction* 2 s. c.
Curriculum planning; modern teaching methods; instructional materials; recent research and its application in the classroom; use of maps and globes.

Ed. 517 *Curriculum Problems in Elementary Education* 2 s. c.
Examination of basic problems and current trends in elementary education; practical, creative projects and investigations dealing with actual teaching situations.

Ed. 519 *The Kindergarten-Primary School Program* 2 s. c.
A survey of kindergarten-primary principles, procedures, and materials appropriate to the school level indicated.

Ed. 521 *Analysis, Diagnosis, Correction of Reading Difficulties* 2 s. c.
Treating remediate reading cases; individual and small group instruction; classification of types of problems; corrective and remedial procedures. (Prerequisite: Foundations of Reading.)

Ed. 523 *Elementary School Organization and Supervision* 2 s. c.
A study of major over-all organization and supervisory programs in the modern elementary school. Professional relationships, community needs, and articulation of the entire educational program as they apply to the teacher in the school. (Open only to those with teaching experience.)

Ed. 527 *Audio-Visual Materials in the Elementary School Curriculum* 2 s. c.
Practice in techniques of using and evaluating the modern communications media in the classroom; correlation of audio-visual materials and techniques with the modern elementary school program. (Prerequisite: Basic AV course.)

Ed. 536 *Supervision in the Improvement of Instruction* 2 s. c.
A study of the best practices used in elementary school teaching. Emphasis is given to developing meaningful assignments, daily lessons, activities, pupil participation, and group and individual projects. The teacher's role in supervision of learning experiences.

Ed. 537 *Creative Expression in the Elementary Curriculum* 2 s. c.
A laboratory course designed to help teachers work with children in the creative arts. Emphasis is placed upon the child's needs to discover creative interests and upon the development of skills and refinements of taste needed for rich experience in art, music, and literature.

Eng. 544 *Principle and Practice in Speech Improvement* 2 s. c.
A course designed to acquaint teachers with the speech problems common to children in the elementary school. Emphasis is placed upon speech rehabilitation; methods of examination, diagnosis and treatment; therapy practice in clinic under supervision.

Ed. 550 *Advanced Educational Psychology* 2 s. c.
Intensive study of the processes by which skills, understandings, concepts and ideals are acquired; examination of teaching practices in relation to basic research on learning. A study of similarities and differences in learning theories. (Prerequisite: Educ. Psychology.)

Ed. 551, 553 *Seminar in Child Development and Behavior* 2 or 4 s. h.
An intensive study of elementary school children — their development, needs and behavior. Course content and organization will depend on the interests and needs of class members; readings, assignments, and projects will be individualized. Open to all students. (Students with no undergraduate course in Child Development may be required to take both semesters of this course.)

Ed. 561 *Guidance in the Elementary School* 2 s. c.
The function of guidance in relation to children's needs; emphasizes principles and techniques which are most applicable in the elementary school guidance program. The teacher's responsibility as a counselor to young children.

Ed. 563 *Measurement and Evaluation in the Elementary School* 2 s. c.
This course is concerned with the various techniques that may be used to measure and evaluate pupil progress in the elementary grades. Sociometric techniques, anecdotal records, techniques of observations, open question procedures are a few methods considered. (Prerequisite: Child Development or its equivalent.)

Ed. 591 *Research Seminar* 1-2 s. c.
(Elementary Education Majors)
Proposed research problems and procedures are formulated and presented for discussion and constructive, critical evaluation and analysis. Special attention is given to the format and preparation of research studies and guidance during the various stages of progress. Prerequisites are Ed. 500 Methods and Materials of Research, and Ed. 510 Educational Foundations.

ENGLISH

Eng. 502 *History of the English Language* — An examination of the basic influences on the structure and general nature of the English langnage as it is used today. Prerequisite: at least one undergradute course in the field of language structure and usage.

Eng. 511 *English Literary Criticism* (1800-1920) — A study of the critical dicta which influenced the course of English literature between 1800 and 1920. Special considerations will be given to such major figures as Coleridge, Hazlitt, Ruskin, and Arnold. Prerequisite: At least one undergraduate course in English literature.

Eng. 512 *American Literary Criticism* (1800-1920) — A study of the critical dicta which influenced the course of American literature between 1800 and 1920. Special consideration will be given to Poe, Whitman, Howells, and the New England writers. Prerequisite: At least one undergraduate course in American literature.

Eng. 513 *English Literary Movements* — A detailed analysis of the development of English literature through a study of the major movements. Special emphasis will be placed on the influence of major writers on literary concepts, trends, and critical dicta. Prerequisite: At least one undergraduate course in English literature.

Eng. 514 *American Literary Movements* — A detailed analysis of the development of American literature through a study of the major movements. Special emphasis will be placed on the influence of major writers on literary concepts, trends, and critical dicta. Prerequisite: At least one undergraduate course in American literature.

Eng. 521 *English Literature to Chaucer* — A study of certain significant figures in English literature beginning with the Old English Period and closing with the Pearl Poet. Emphasis upon origins, trends, and influences. Reading, reports, research.

Eng. 522 *Chaucer* — A study of the life and works of Chaucer; readings, reports, and class discussions of major and minor works and theories of origin and influence.

Eng. 523 *Eighteenth Century Novel* — The significant master works of prose fiction in England from Defoe to the end of the century; development of types of the novel; the theories of structure, techniques of characterization, and the philosophies of the major authors.

Eng. 524 *British and Continental Short Story* — A consideration of the short-story form especially as concerned with it sorigin, development, and current trends. Emphasis upon the influences of German, French, and Russian writers upon the British form.

Eng. 531 *Shakespeare's Predecessors in Drama* — A course designed to trace the development of the drama from classical antiquity to the time of Shakespeare. The purpose is to consider the nature, structure, and other major aspects of the principle types of drama.

Eng. 532 *Advanced Shakespeare* — Discussion with readings, reports, and original research on selected plays; study of origins,development, and influence.

Eng. 533 *Nineteenth Century Drama* — A study of the development of drama as an institution in the Nineteenth Century. Although the primary emphasis will be upon English and American drama, continental influences will also be treated. Prerequisite: At least one undergraduate course in drama.

Eng. 534 *Nineteenth Century American Prose* — A study of the major writers and influences in 19th century American prose. Prerequisite: at least one undergraduate course in the field of American literature.

Eng. 541 *Greek and Roman Literature in Translation* — A study of the major dramatic, epic, and lyric works from the classical period with their influences upon Anglo-American literature from the sixteenth to twentieth centuries.

Eng. 542 *French Literature in Translation* — A study of French literature from Rabelais to Andre Gide. Emphasis upon the development of modern French literature and its influence upon Anglo-American literary forms and trends.

Eng. 543 *Advanced Problems in Public Speaking* — Intensive study of parliamentary procedures for both large and small groups with special emphasis on the problems of the chairman, committee members, conventions, etc.; leadership and participation in group discussion on current public questions; speech making. Special research project is required.

Eng. 544 *Problems of Speech Correction* — Discussion, lectures, and demonstrations on the rehabilitation of stammerers, of persons with cererbal palsy, cleft palate, hearing loss, and aphasia. Special emphasis on diagnosis, problems, integration with medical and training centers, treatment, and adjustment with society.

Eng. 550 *Literature for the Elementary School* — A course designed to acquaint the student with the content and approach of the literature program in the elementary school. Although this course is designed primarily for elementary school teachers, it can also be pursued profitably by administrators, curriculum specialists and others interested in the elementary school level.

Geog. 500 *Biogeography* — A study of causes and effects of major floral and faunal distributions over the earth. The course will stress the natural original distribution of plants and animals that are of major economic importance to man and how man has changed these original patterns. The study of new and potential uses by man of the plant and animal world will be included with particular attention given to the attempt by man to enlarge the distribution area of the plants and animals he finds economically useful. Prerequisite: World Geography.

Geog. 501 *Geomorphology* — The course deals with the classification of major and minor surface features of the earth and their origins. The structures of land forms and the earth processes which brought them about are explained with special references to their relationships to mining, engineering, and other human activities. The interpreting of land forms from topographic maps is an important part of the course.

Geog. 502 *Regional Climatology of the Continents* — A descriptive and explanatory analysis of the characteristics of the climates of each continent. Emphasis is on deviations from the normal world pattern as they are developed through climatic controls associated with the various continents.

Geog. 503 *Advanced Cartography* — An advanced study of cartographic methods including Laboratory work in advanced construction techniques. Map construction, graphic representation, land form drawing, lettering and color reproduction are included in the work. Prerequisite: Geography 303 or consent of department head.

Geog. 504 *Regional Physiography of North America* — A regional analysis of the surface configuration of the North American continent. Emphasis will be placed on the geographical interpretation of those aspects of the terrain especially significant in affecting utility of the land. Prerequisite: Physiography, Geology or Geomorphology.

Geog. 520 *Problems of Economic Geography* — A study of economic situations in our country and the world with emphasis on the major problems of production, surplus, marketing, conflicting national policies and special problem areas. Also the problems in gathering, presenting and comparing economic data will be analyzed.

Geog. 521 *Agricultural Geography* — A survey of the distribution, variations and significance of the major types of agriculture in the world. Analysis of major world crops and their distribution, with emphasis on relationships to climate, soils, terrain and economic factors will be developed.

Geog. 522 *Ethnic and Demographic Problems of Geography* — A study of the characteristics and distribution of ethnic groups, and the geographic problems that arise from densities of population involving ethnic groups. The course will include present and future distribution and re-settlement problems, with geographic factors used as a basis for interpretation.

Geog. 523 *Political Geography* — A study of the development and trends of the present world political pattern. The course involves spatial factors affecting the organization of the various political units of the world. Patterns of geopolitical development will be considered and analyzed.

Geog. 524 *Modern Concepts in Global Geography* — The course provides an over-all view of physical and human geography on a world scale. Analysis of the physical environment, the distribution of man on the earth and relationships between geography and political functions are important aspects of the course. The study of earth space is related to economic and strategic factors.

Geog. 525 *Geography in World History* — Geographic influences in selected aspects of world history are developed. Geographic factors in settlement and expansion, the development of raw materials and major trade areas and routes analyzed. Study is made of changes in the use of land and natural resources in significant periods of world history and the geographic factors related to these changes.

Geog. 526 *Advanced Conservation of Natural Resources* — An economic and geographic appraisal of resource conservation in the United States, including factors of regional and national planning for resource utilization. The summer offspring of this course may be organized as an advanced conservation workshop.

Geog. 527 *Geography of Regional and Urban Planning* — Geographical concepts of space factors, resources, natural situation and location will be applied in considering the needs of our expanding industrial society as related to regions and urban centers. Both national and local regional and urban problems will be analyzed with special studies made of local or near-by planning projects.

Geog. 540 *Geography of the United States and its World Relations* — An analysis of the interdependence of our country in the world of nations. Changing patterns within the United States will be analyzed in relation to economic strategic and political developments in other parts of the world. Prerequisite: World Geography.

Geog. 541 *Geography of Canada* — A study in the physical and cultural regionalism of Canada. The course will survey the natural resources and patterns of human occupance including agriculture, industry and transportation.

Geog. 542 *Geography of Mexico and Middle America* — A regional geography of Mexico, Central America and the West Indies. The course will survey the development of political divisions and their present day functions in relation to their geographic conditions. Special emphasis will be placed on the geographic analysis of the past these countries play in Inter-American affairs.

Geog. 543 *Geography of South America* — A regional geography of South America including an analysis of the physical base, settlement, agriculture, mining and manufacturing. Emphasis will be placed on Inter-American relations of these countries.

Geog. 544 *Geography of Europe (excluding the U.S.S.R.)* — An advanced study of the geographic factors in the economic, social and political progress of the European nations. Emphasis will be put on current major problems of the continent in light of their geographic background. Consideration will be given to some geopolitical problems.

Geog. 545 *Geography of Africa* — A study of the physical structure and resources of the continent in light of competing cultures and economic forces which have helped shape the human geography of the continent. The impact of alien cultures, with particular emphasis on Islamic and Western influences in creating geographic regions will be considered. Africa's strategic importance in the present and future world picture will be noted.

Geog. 546 *Geography of Asia (excluding the U.S.S.R.)* — An over-all survey of Asia including a study of physical and geographic regions, with concentrations on the monsoon realm, the Far East and Southwest Asia. The resources and major activities of the people in regions of densest population and greatest economic and strategic importance will be stressed.

Geog. 547 *Geography of the Soviet Union* — The course includes both European and Asiatic U.S.S.R. and the satellite nations. The elements of the geographic environment and the major regional divisions will be studied in relation to the resource base and the economic and political aims of the

country. Emphasis will be placed on the positive and negative geographic factors in relation to the strength and weakness of the U.S.S.R. as a major world power.

Geog. 548 *Geography of the Pacific Lands* — A study of the physical and cultural geography of Pacific Asia, Australia and the major island groups. Emphasis will be placed on the resources, economic factors, and strategic significance of these areas in light of the present day world economic and political situations.

Geog. 580 *Graduate Seminar in Geography in Education* — An advanced course on geography in the present day American schools. The work is concerned with meeting the needs of those expecting to teach geography. Techniques of teaching geography in the various forms in which it is currently presented in relation to the curriculum are emphasized.

Geog. 581 *Graduate Seminar in Modern Philosophy of Geography* — A review of modern geographic thought with emphasis on the contributions of American geographers. Points of view on environmentalism, regionalism and other doctrines that find expression in geographic literature will be examined.

Geog. 582 *Methods and Materials in Geographic Research* — The course will survey the various sources of geographic information and the methods of handling such materials for compiling into reports and geographic writing. Bibliographic aids and archival sources of geographical material will be used in preparation of research reports.

Geog. 583 *Geography Field Course* — An advanced field course in geography to include both urban and land use studies. Field methods, mapping and assembling of field study findings into geographical reports will be part of the course.

Geog. 584 *Workshop in Geography* — A combination of research, field work, teaching procedures and group studies on one or several phases of geography will be organized and carried out on a workshop basis.

MATHEMATICS

Math 501 *Fundamental Concepts of Mathematics* — A course for the elementary teacher. It includes development of our number system, the base of a number system, and the role of the various types of numbers and operations in mathematics. The course stresses the meanings and understandings of the mathematics related to the elementary program.

Math 502 *A Survey of Modern Mathematics* — A course to acquaint teachers with recent developments in mathematics. The topics included for study are selected from mathematical structure, properties of integers, sets, groups, logic, Boolean algebra and non-Euclidean geometry.

Math 503 *History of Mathematics* — A course tracing the development of mathematics from the prehistoric to the present. This course involves a study of various areas in mathematics as well as the men responsible for the development.

Math 511 *Higher Algebra* — A course in linear algebra. It includes matrices, determinants, their theory and application to systems of equations.

Math 512 *Theory of Numbers* — A survey of the elementary arithmetic of the integers. The course includes properties of numbers, prime numbers, factorization, congruences and diophantine equations.

Math 513 *Foundations of Algebra* — A course in modern algebra. It treats abstract algebric structures such as integral domains, groups, rings and fields from an axiomatic point of view.

Math 521 *Educational Statistics* — A course in statistics for the teachers. The course includes measures of central tendency, deviation, correlation and tests of significance of results.

Math 522 *Advanced Educational Statistics* — A continuation of Math 521. It includes applications of various distributions, analysis of variance and corvariance and multivariate analysis.

Math 523 *Introduction to Mathematical Probability* — A course involving the mathematical treatment of random phenomena. Included for study are elementary concepts of probability, conditional probability, compound events, expectation and random variable.

Math 524 *Mathematical Statistics* — A course emphasizing the mathematical aspects of statistics. It includes correlation, sampling, tests of significance, analysis of variance and other topics.

Math 531 *Foundations of Geometry* — The course begins with a study of axiomatics and the general structure of any geometric system. Specific study is made of Euclidean Geometry according to the postulates of Euclid and Hilbert. Certain topics in Projective and Hyperbolic Geometry are also investigated.

Math 532 *Projective Geometry* — A course in the projective properties of various configurations. Among the topics included for study are projective theory of conics, duality, harmonic sets, cross ratio, Desargue's and Pascal's Theorems, poles and polar relationships.

Math 541 *Advanced Calculus I* — An introduction to mathematical analysis. The course includes limits, continuity and derivatives.

Math 542 *Advanced Calculus II* — A continuation of Math 541. The emphasis of this course is on integrals.

Math 543 *Differential Equations* — A course in the theory, solution, and application of ordinary differential equations. It includes differential equations of the first and second orders.

Math 545 *Introduction to the Theory of Function of a Real Variable* — A course in real analysis. Included for study are the real number system, sets, order, theory of limits, continuity, derivatives and integrals.

Math 547 *Introduction to the Theory of Functions of a Complex Variable* — A course in complex analysis. Included for study are the complex number system, analytic functions, differentiation and integration, expansions and conformal mapping.

Math 550 *Methods and Materials of Research in Mathematics Education* — A course involving a study of the techniques of research in mathematics education. Included are an analysis of the various types of research, selection of a problem, selection of appropriate procedures and the formulation of a plan of investigation and report.

Math 551 *Arithmetic: Methods, Curriculum and Research* — A course in recent developmentsc in the teaching of arithmetic. The course stresses meaning and understanding in arithmetic by analyzing the social and mathematical phases of numbers. Content of the arithmetic curriculum as well as recent research are also considered.

Math 552 *Seminar in Mathematics Education* — A critical re-examination of secondary school mathematics from a professional point of view. The course stresses methods of teaching as well as actual subject matter. Modern trends in secondary school curricula are also considered.

Math 600 *Research Report*

Math 610 *Thesis*

Sci. 501 Introduction to Study of Fossils .....3 *semester credits*
The history of plant life and animal life on our planet, as shown in the record of the rock formations. Field trips to visit museums as well as laboratory experiences in the study of living forms and fossils will aid graduate students in the comprehension of the great literature of paleontology.
Prerequisite: Completion of a field in biological science or general science.

Sci. 511 Systematic Botany .....3 *semester credits*
Scientific methods applied to the classification of leafy and flowering plants. Observation of living specimens in the field, woods and gardens will be supplemented by lectures and herbarium work. Various systems of historical importance will be reviewed. The modern approach to experimental taxonomy will be emphasized.
Prerequisite: General college botany or basic biology and field botany.

Sci. 512 Plant Growth .....2 *semester credits*
A comprehensive review of various theories of growth and consideration of the evidence. A study of apical meristems, secondary growth, and development of reproductive parts is projected against a background of plant physiology. Experiments with plant materials will involve use of phytohormones and various synthetic substances known to affect growth of vascular plants.
Prerequisite: Two semesters of general college botany and a course in plant physiology or permission of the professor in charge.

Sci. 514 Plant Pests and Diseases .....3 *semester credits*
The nature of infectious plant parasites, insects and nematodes which cause considerable damage to turf, farm crops, forest trees, ornamentals and stored grains. Several specific organisms are studied in some detail. Modern control measures are noted.
Prerequisite: Two semesters of college botany and one semester of invertebrate zoology, with laboratory experiences.

Sci. 523 Resource Material in Elementary Science .....2 *semester credits*
A course designed to acquaint the elementary school teacher with the resource material in his community and elsewhere that is essential to the curriculum of the modern elementary school. Although this course is designed primarily for elementary school teachers, it should prove profitable to administrators also.

Sci. 524 Experimental Biology .....3 *semester credits*
Techniques in demonstrating body functions and animal behavior. Humanely conducted operations will utilize several types of invertebrates as well as fish, frogs and rodents. These are designed to demonstrate reflexes, tropistic responses, enzymatic digestion, peristaltic movements, circulation of the blood, metabolism, normal and anomalous growth.
Prerequisite: Completion of a major field in biological science.

Sci. 525 Introduction to Biochemistry .....3 *semester credits*
Chemical changes in biological systems. Newer knowledge of living organisms requires study of compounds that are peculiar to the tissues of plants and animals. Carbohydrates, proteins, lipids, organic acids and their metabolic derivatives will be considered. Special emphasis will be placed on enzyme systems concerned in energy transformations.
Prerequisite: Two semesters of college chemistry and undergraduate specialization in biology.

Sci. 541 Economic Entomology .....2 *semester credits*
Beneficial and deleterious influences exerted by insects upon man's welfare; their identification, distribution, life histories and control. Special attention will be devoted to insects attacking crop plants, stored products,

and livestock. Further study will be devoted to pollinating insects as well as the predaceous and parasitic forms utilized in biological control of organisms.
Prerequisite: Completion of a field in biological science including general entomology or invertebrate zoology and college botany courses.

Sci. 542 Animal Ecology .....3 *semester credits*
Interrelationships of organisms and the environment, including physical and biological factors. Topics for discussion and investigation will include animal distribution, procuring food, escape from enemies, surviving climatic extremes, reproductions and community organizations. Field trips to study a variety of terrestrial and freshwater habitats will be required.
Prerequisite: Two semesters of college zoology or general biology.

Sci. 543 Freshwater Biology .....3 *semester credits*
Habitats, morphology and taxonomy of our local freshwater plants and animals. Work in the course will include classroom lectures and dissection, field trips and a minor problem. Each student must present at a seminar meeting a complete report of some individual research project.
Prerequisite: College zoology, college botany, and at least one field course in biology.

Sci. 544 Vertebrate Dissection .....3 *semester credits*
Practical methods of examining bodies of vertebrate animals to observe differences in the structure of organs and organ systems. Functions of each will be discussed. An effective lecture-demonstration at a final seminar is a required outcome.
Prerequisite: College zoology and vertebrate anatomy.

Sci. 545 Developmental Anatomy .....2 *semester credits*
A review of the anatomy of the human reproductive systems and the fundamentals of human development. Students make a survey of current literature dealing with the origin of sperms and ova and the sexual cycles. The establishment of several functional systems of the human body is studied, with constant reference to those in chicks and monkeys. A term paper is required which shall be presented to the class group.
Prerequisite: Anatomy, physiology and embryology courses.

Sci. 561 Human Heredity .....2 *semester credits*
The in-born qualities of human beings and their genetic basis. This subject deals with both physical and mental aspects, normal and sub-normal, including such topics as linkage, crossing-over, mutations, nature of the genes, multiple alleles, multiple genes, incomplete dominance, lethal genes, relationship to heredity and environment, and effects of radio-active substances.
Prerequisite: A course in general genetics or two semesters of a biological science.

Sci. 562 Physical Anthropology .....2 *semester credits*
A study of mankind, dealing with physical differences among various cultural groups. Variations in stature, skin color, blood groups, and other so-called racial differences will be studied in the light of evolution and modern science of genetics. The purpose of this course is to disclose such differences and to account for them, using scientific literature and methods.
Prerequisite: Completion of a field in biological science or health and physical education.

Sci. 571 Advanced Bacteriology .....3 *semester credits*
Diagnostic procedures and minor problems in microbiology, immunology and immunochemistry. The fields of medical mycology, virology and use of antibiotics will be examined.
Prerequisite: Completion of a field in science, including two semesters of chemistry and an undergraduate course in bacteriology or microbiology.

Sci. 572 General Cytology .....3 *semester credits*
Techniques of preparing cells and tissues for microscopic examination. The physical properties, chemical structure and metabolism of cells will be studied, using both plant and animal tissues.
Prerequisite: Completion of a field in biological science.

Sci. 591 History of Biology .....*2 semester credits*
Great discoveries in the field of biology and related literature from that of Theophrastus to the present should be evaluated. Emphasis will be placed on the philosophical implications of these discoveries and the economic changes which have resulted from the major discoveries.
Prerequisites: College zoology, college botany and a field of at least 24 semester hours in science.

Sci. 595 Elementary Science Curriculum and Instruction .....*2 semester credits*
Methods and materials used in teaching science in elementary grades; demonstration experiments adapted to elementary classroom work; curriculum planning; recent research and its application; field trips.

SOCIAL STUDIES

Group A

History 510 Early American History 2 s. c.
A study of the period of colonial development; the era of revolutionary conflict; the experiment in confederation; the constitutional foundation of the republic; and the early years of evolving democracy. Special emphasis is placed on the political, social, economic, and cultural patterns of young America.

History 511 Growth of the American Nation 2 s. c.
An intensive study of the growth of the nation and the problems involved therein: nationalism, sectionalism, and democracy; commerce, industry, and the tariff; the rise of the new West; the issues of slavery, Civil War, and reconstruction; the development of big business and labor; and the resurgence of imperialism.

History 512 The United States as a World Power 2 s. c.
A study of America's development as a world power. It deals with the impact of industrialization upon society, politics, and economics; the problems of the war and post-war periods; and the work of our nation toward world unity. Emphasis is placed on the immediate background of current affairs.

History 513 American Constitutional History 2 s. c.
A study of the origin and development of the American constitution from its English background to the present time. Emphasis is on the progressive adaptation of the law to a changing social and economic order. Such conflicts as nationalism versus state rights, and vested rights versus police power are investigated.

History 514 Seminar in Recent American Diplomatic History 2 s. c.
A study of American foreign policy in Europe, Asia, Latin America, and the Middle East from 1939 to the present; in each area of study there is presented the objectives sought by the United States and the political, military, economic, and social policies it pursued in an attempt to achieve these objectives. Special detail is given to two fundamental issues on which free-world survival depends — the nature of our military strategy and the future of underdeveloped countries.

Group B

History 520 Early European History 2 s. c.
A study of the latter Medieval Ages with emphasis on commercial expansion and secularism; the Rennaissance with emphasis on the rise of individualism,

absolutism, and the beginning of European expansion; and the Reformation with emphasis on dynastic absolutism, nationalism, and capitalism.

History 521 17th, 18th, and 19th Century Europe 2 s. c.
A study of dynastic rivalries of the 17th and 18th centuries; of the commercial colonial rivalries of the European powers of the 18th century; the growth of the revolutionary spirit; and the problems of 19th century Europe.

History 522 Twentieth Century Europe 2 s. c.
A study of twentieth century Europe with emphasis on the causes of World War I; the problems of Europe between World War I and World War II; the causes of World War II; and the problems of contemporary Europe.

History 523 Contemporary World Affairs 2 s. c.
An analysis of the causes of the cold war between the U.S.S.R. and the United States and the Western Democracies; contemporary efforts to realize peaceful coexistence of the democracies with the Communist dictatorships; and the impact of the nationalist movements of the peoples of Asia and Africa on contemporary world politics.

History 524 Cultures of the Non-Western World 2 s. c.
A study of the political, economic, institutional, and cultural growth of Africa, India, Southeast Asia, and the Far East. Emphasis is placed on the comparisons and contrasts between these regions and the rest of the world. Special attention is given to recent interpretations of the many new aspects of Asian and African culture.

Group C

History 502 Methods and Materials for Teaching Social Studies 2 s. c.
The course is designed to acquaint teachers with current practices and procedures in the Social Studies field with emphasis upon organization and planning; the use of classroom, library, and curriculum materials; testing, measurement, and evaluation; and bibliographical sources for both teachers and students.

Political Science 531 Modern Political Thought 2 s. c.
Critical analysis of enduring political problems, primarily in the writings of European theorists from Machiavellie to the present; an analysis of the basic concepts of political science; and theories concerning the proper role of the State in society.

Political Science 532 Seminar in International Relations 2 s. c.
A study of the factors which motivate the actions of nations on the contemporary international scene; with special emphasis on the machinery which members of the nation-state system have evolved for giving effect to their various policies. The methods of diplomacy, international law, and international organization are stressed.

Economics 531 Comparative Economic Systems 2 s. c.
A study of major forms of economic organizations with particular emphasis on those existing today. The course is presented so as to contrast the structure of capitalism, socialism, communism and fascism.

Economics 532 History of Economic Thought 2 s. c.
The historical evolution of the major economic doctrines; mercantilists and cameralists; physiocrats; Adam Smith and the classical school; the historical school; the Austrian school; Alfred Marshall and the neoclassicists.

Sociology 531 Social Pathology 2 s. c.
A study of cultural patterns defined by society as undesirable. Analysis of the role of social science principles relating to the functioning of the family, education, and the state in modern society. Pathological patterns in the economic, educational, and political life resulting in social disorganization.

Sociology 532 Historical Sociology 2 s. c.
A study of the history of social thought from early primitive beginnings to recent contemporary times. It makes use of social thought in Europe and America. Emphasis is given to a survey of the work and personalities of outstanding American sociologists projected on the background of social theory and research.

Group D

H. 610 Thesis * 2-3 s. c.
Each graduate student must present a thesis developed under the guidance of a member of the Social Studies Department. The student must show a marked attainment in some field of his major subject and he should demonstrate that he has acquired the methods and techniques of scholarly investigation.

Supporting elective 2 s. c.
The graduate student must take course work in fields of study necessary to augment his background for work on his thesis. If the thesis is in the realm of colonial history, for example, his supporting elective must be in Early American History. The elective might be in another department, but only if the thesis subject warrants this. A thesis in colonial literature, for example, would be supported by a course in American Literature.

* See page 8 "Course Requirements" thirty-four hour option.

MUSIC

A. REQUIRED COURSES

Section I.

a. Required Course

Mus. 510 *Current Trends in Music Education* 2 s. c.
Current principles and philosophy in music education in relation to modern educational philosophy and curriculum practices. Prerequisite: Elementary and Secondary Music Methods.

b. Required Elective Course (select one) 2 s. c.

Mus. 511 *Administration of Public School Music* 2 s. c.
A consideration of administrative problems, curricular content, scheduling, in service training of teachers, and supervisory planning will be included. Participants may bring in problems which have been encountered in the supervision and administration of public school music. Prerequisite: Teaching experience.

Mus. 512 *Music Education in the Secondary School* 2 s. c.
This course deals with the general music class in the Secondary School with special emphasis on the problems in the Junior High School. Prerequisite: Secondary Music Methods and Teaching experience.

Mus. 513 *Music Education in the Elementary School* 2 s. c.
This course is planned for the music educator with emphasis upon problems, procedures, and materials and their practical application in the Elementary class room. Prerequisite: Elementary Music Methods and Teaching Experience.

Mus. 514 *Pedagogy of Music Theory* 2 s. c.
A study of the techniques and materials for use in teaching the various skills included in courses in music theory. Special emphasis will be placed on a harmonic review and theoretical instruction in the public schools. In addition, a comparative study of the work of outstanding theorists, past and present, will be included.

Mus. 515 *Marching Band Techniques and Materials* 2 s. c.
A detailed study of the Marching Band including organization, music, materials, care of instruments and uniforms, marching essentials, and contemporary techniques.

Mus. 516 *Piano Pedagogy* 2 s. c.
A consideration of principles and procedures of piano teaching at all levels. Sound practice procedures, as well as the essentials of technique, style, and musicianship will be demonstrated through performance. Opportunity to teach and prepare criticisms will be provided. Prerequisite: Teaching experience or evidence of sufficient pianistic background to profit from the course.

Mus. 517 *String Pedagogy* 2 s. c.
The principles and techniques of teaching applied music. A concentrated study of the presentation of techniques from early through advanced grades, with an analytical examination of carefully chosen and recommended material for teachers. Prerequisite: Performing experience on string instruments.

Mus. 518 *Vocal Pedagogy* 2 s. c.
A practical approach to the principles and techniques of teaching voice at all levels is presented. Stress is laid upon materials and procedures concerned with improving the tone quality of the individual and/or the group. Prerequisite: Teaching experience or evidence of sufficient vocal background to profit from the course.

Mus. 519 *Music Appreciation in the General Music Program* 2 s. c.
A comprehensive study of the many different approaches to the development of musical understandings which stimulate a sincere appreciation of music. Particular emphasis is placed upon materials and their reflection in pupils' appreciative responses.

Section II. Applied Music — require (a, b, or c) 4 s. c.

a. Keyboard

Mus. 541-551 *Advanced Piano or Advanced Organ* 1 or 2 s. c.
Continued study in all phases of piano or organ performance through the literature from Bach to the contemporary period; opportunity for recital performance will be provided. Prerequisite: 4 credits in piano or organ, with performing experience.

Mus. 546-549 *Piano Ensemble and Master Class* 1 s. c.
Emphasis will be placed on the study and performance of accompaniment material, chamber music, and original works and arrangements for four-hands and two-piano combination. Both classical and contemporary literature will be considered. Rehearsal techniques in ensemble playing will receive stress. Prerequisite: Pianistic ability at a level to function effectively in the class.

b. Vocal

Mus. 503 *Advanced Choral Conducting* 2 s. c.
Discussion, study, and practical application of choral conducting techniques involved in the performance of the music of the various schools of choral writing, sacred and secular. Prerequisite: Choral conducting.

Mus. 531-535 *Advanced Voice* 1 or 2 s. c.
Continued study in all phases of vocal techniques. Development of repertoire from as many schools as possible including widely contrasting styles for use in church and recital. A voice major should give a recital of three or four groups of songs. Prerequisite: 4 credits in voice and performing experience.

Mus. 536-537 *Vocal Ensemble and/or Chorus* 1 s. c.
Participation in the preparation of choral and/or ensemble programs for concert performance. Prerequisite: Chorus experience equivalent to the undergraduate requirement for chorus; sufficient voice and reading ability to profit by extensive work in this area of participation.

Mus. 538-539 *Opera Workshop* 2 s. c.
A practical study of the technique of producing musical stage plays. Covers study of music and action only. Includes preparation of roles, coaching, conducting rehearsals, and possible public performance. Participants engage in singing, accompanying, directing, etc., as needed to supply the experience.

c. Instrumental

Mus. 501-502 *Advanced Class Instruction in Instruments* 1 s. c.
This class is offered to students who wish to become familiar with the playing and teaching techniques of the orchestra and band instruments. Prerequisite: Violin, Clarinet, Trumpet.

Mus. 504 *Advanced Instrumental Conducting* 2 s. c.
Study and practice of the problems involved in conducting more advanced music literature. Developing the ability to read and conduct full scores of works involving larger orchestra than used in undergraduate work. Prereuisite: Instrumental Conducting.

Mus. 561-565 *Advanced Instruments* 1 or 2 s. c.
Continued study in all phases of technique in relation to the performance of the instrument's repertoire; opportunity for recital performance will be provided. Prerequisite: 4 credits in instruments and performing experience.

Mus. 566-569 *Ensemble and/or Orchestra or Band* 1 s. c.
Participation in preparation of programs for concert performance. Prerequisite: Experience equivalent to the undergraduate requirement.

Section III. — Structure and Organization of Music
and/or } Require 4 s. c.
Section IV — Literature and History of Music

III — Courses:

Mus. 521 *Advanced Counterpoint* 2 s. c.
A course devoted to more advanced study of the polyphonic forms including extensive analysis of instrumental and vocal fugues, and creative writing in the more complex forms. Prerequisite: The equivalent of Counterpoint description in the undergraduate catalogue.

Mus. 522 *Advanced Composition and/or Orchestration* 2 s. c.
Creative work in various forms. Prerequisite: A knowledge of the instruments of the orchestra and experience in their use in original composition.

Mus. 523 *Advanced Band Arranging* 2 s. c.
Emphasis is placed on arranging for the high school band. Consideration is given to Bands with inexperienced players and limited instrumentation. Students will have the opportunity to hear their arrangaments performed Prerequisite: Orchestration or Teaching experience.

IV — Courses:

Mus. 505 *Contemporary Music* 2 s. c.
A study of the techniques and artistic movements of the 19th century necessary for the understanding of contemporary music. Musical styles and techniques of the 20th century will be studied utilizing recordings, performances, scores, periodicals, etc. Individual composers will be discussed along with the analysis of selected works. The contribution of America to the contemporary musical scene will be emphasized.

Mus. 506 *Instrumental Literature* 2 s. c.
Instrumental materials for public school groups at all levels are discussed and evaluated. Program building and music for special programs are emphasized. Actual performance and recordings are used when possible. Prerequisite: Instrumental methods and performing experience.

Mus. 507 *Vocal Literature* 2 s. c.
A course designed to meet the needs of students, artists, and teachers giving them a performing and teaching command of representative song repertoire and program building. Material includes classic song literature, lieder, modern songs, and arias from standard operas and oratorios illustrated by performance of and by records, members of the class, and the instructor. Prerequisite: 4 credits in voice and performing ability.

Mus. 508 *Choral Literature* 2 s. c.
A study of the music used for purposes of choral ensemble through the course of the history of music as an art. Study by participation in actually singing of the material, and by research into some single phase elected by the student with the approval of the professor.

Mus. 509 *Piano Literature* 2 s. c.
A course designed to meet the needs of the performing students, teachers, through the medium of records, discussion and performance of great piano literature. Prerequisite: Performing experience.

Mus. 524 *String Literature*
An intensive study through performance, analysis, and lecture of advanced string literature suitable for performance. The course will stress the problems of technique and the interpretive aspects of representative works of composers from the pre-Bach through contemporary periods. Prerequisite: Advanced playing ability required.

Mus. 525 *Woodwind Literature* 2 s. c.
A comprehensive evaluation of materials for solos and ensembles through actual performance and the use of recordings forms the basis for this course. Prerequisite: Performing experience.

Mus. 526 *Brass Literature* 2 s. c.
A comprehensive evaluation of materials for solos and ensembles through actual performance and the use of recordings forms the basis for this course. Prerequisite: Performing experience.

Mus. 527 *History of the Opera* 2 s. c.
Detailed study of the composers and their major contributions to the opera movement. Prerequisite: 6 credits of History of Music.

Section V. Required Electives 2 s. c.
Section II or III or IV

B. ELECTIVES (offered as needed)

a. Music Education Students

Mus. 581 *Accompanying* 2 s. c.
Designed to consider the principles and problems of accompanying by various types of accompanying experiences in the vocal and instrumental literature. Students are given practical experience in studio accompanying at all levels of difficulty. Prerequisite: Sufficient pianistic background; 4 credits in piano.

Mus. 582 *Form in Music* 2 s. c.
A study of the internal and external aspects of form in music. The varied relationship of motivic elements will be discussed in the analysis of selected works representing the traditional homophonic and contrapuntal forms. Masterworks to be studied will be selected from various periods illustrating a wide variety of styles.

Mus. 583 *Music in the Baroque Period* 2 s. c.
A historical and appreciative study of music from 1600 to 1750, with special attention to stylistic and formal developments; significant trends and their relationship to general history and subsequent evolution of the art; some biographical study including Bach and Handel. Outside reading, research papers and classroom discussion required.

Mus. 584 *Seminar in Piano Teaching and Teaching Materials* 2 s. c.
A seminar giving in-service music teachers and supervisors the opportunity for class study of outstanding examples of the piano literature. The role and integration of the piano into the public school program along with suitable teaching materials for class and private study will be analyzed and used in demonstrations and student teaching.

Mus. 585 *String Literature and Pedagogy* 2 s. c.
This course is designed to give music teachers an understanding of the problems involved in teaching string classes. It is basically a study of techniques and methods required for the effective teaching of string classes.

Mus. 586-587 *Vocal Diction* (two semesters) 2 or 4 s. c.
First semester — English, Italian and Latin Diction.
A laboratory course to establish correct pronunciation in singing English, Italian, and Latin with practice in the use of the phonetics of these languages in selected standard song repertoire.
Second semester — French and German Diction.
The study of French and German as applied to singing and the acquirements of correct pronunciation through the use of the phonetics of these languages in selected standard song repertoire.

Mus. 588-589 *Seminar in Music Education* 1 or 2 s. c. each semester
(one or two semesters)
Special topics designed to meet the need for special study in the particular field of music are studied and analyzed in conferences, discussions, and independent work. Prerequisite: Eight credits of graduate work including "Current Trends in Music Education" and "Methods and Materials of Research."

b. Elementary Education Students

Mus. 572 *Vitalizing Music in the Elementary School* 2 s. c.
A course planned primarily for elementary teachers. It aims to prepare them to teach more effectively and to enrich the program of Music Education in the schools. This will be brought about through study of the various series of song and rhythm materials currently available for use in elementary schools. It will develop the basic knowledge of simple instruments such as the xylophone, autoharp, and percussion.

Mus. 573 *Keyboard Activities for the Classroom Teacher* 2 s. c.
Designed primarily for the elementary classroom teacher through a functional study of the piano. Grasp of fundamental principles of accompanying classroom singing, rhythmic and creative activities by studying and performing practical classroom materials.

Mus. 574 *Teaching of Music Appreciation in the Elementary Grades* 2 s. c.
A course designed for elementary teachers. It aims to provide suitable and available materials from which units of study for a specific grade are organized for the purpose of enriching the music program. Emphasis is placed upon the use of audio-visual materials.

c. Open to all Students

Mus. 560 *Study and Appreciation of the Opera* 2 s. c.
Hearing and studying the opera from its origin to the present. Works from Monteverde to Gluck to Briten, Menotti, and Stravinsky will form the "repertoire" of this course. Greater emphasis will be placed on the most significant contributors to the development of the opera.

Mus. 571 *Music Criticism and Aesthetics* 2 s. c.
Exercises in writing musical criticism and essays will be undertaken. Aesthetic concepts of different eras will be discussed.

Mus. 580 *Music in National and International Affairs* 2 s. c.
A study of the spheres of influence of music throughout the ages with particular consideration being given to the socio-cultural aspects and the application of this knowledge to everyday life.

Mus. 590 *Study and Appreciation of The Symphony* 2 s. c.
An elective course open to music majors and students from other departments and fields of interest. A course presenting the musical forms and literature of the symphony in an intelligible, stimulating, and enjoyable way. The course evaluates the basic instrumental forms which directly influence the development of the symphony and follows a comparative growth and expansion through the contemporary period in music. Paramount in the course is the non-technical approach to analysis and the development of meaningful listening procedures for a representative number of carefully chosen compositions from the standard literature for the symphony.

HEALTH AND PHYSICAL EDUCATION

H.E. 500 *Methods and Materials of Research* 2 s. c.
A study of the techniques of research in education with specific application to the field of health, physical education and recreation. Prerequisite: A course in Measurement and Evaluation in Health, Physical Education and Recreation.

H.E. 501 *Advanced Rhythmical Foreign Gymnastics* 2 s. c.
A comparative study of foreign systems of rhythmical gymnastics stressing music and rhythmical movement done in free style with hand apparatus such as balls, hoops, and wands.

H.E. 502 *Elementary Physical Education Workshop* 2 s. c.
A complete orientation for the teaching of elementary physical education. Principles and practices will be presented and developed. A variety of appropriate activities will be considered from the standpoint of their use at various grade levels.

H.E. 503 *Advanced Aquatics* 2 s. c.
This is a course for aquatic directors, physical education supervisors, recreation and camp directors, and school administrators. A prerequisite of a high degree of competitive skill is not necessary.

The course contains a clinical approach to the teaching and coaching of swimming, diving, and life saving with emphasis on the latest techniques of class organization and instruction. There is also an analysis of competitive diving and swimming strokes from the problem-solving viewpoint; a planning of an all-inclusive aquatic program for schools and camps; and a critique on facilities, equipment and personnel direction. Each student will also pursue a major area of research.

H.E. 504 *Dance in Education* 2 s. c.
Contemporary use of all forms of dance found in schools. Opportunities will be given to develop programs in a specific area of choice. Resources in terms of a variety of music will be fully developed.

H.E. 510 *School and Community Recreation* 2 s. c.
A study of community recreation with special emphasis on the role of the school in relation to the total program.

H.E. 511 *Field Problems in Recreation* 2 s. c.
A study of the field problems commonly met in recreation. Each student will work in a specific problem area in a recreational field. Conferences and resources will be used in developing solutions to the problem. (Admission by approval of major professor and the Director of Health, Physical Education, and Recreation.)

H.E. 512 *Outdoor Education Workshop* 2 s. c.
A study of principles, procedures, and skills necessary to conduct an outdoor education program. Students will participate in and serve as leaders in a college sponsored outdoor education program.

H.E. 520 *Advanced Coaching* 2 s. c.
A study of recent trends and changes in theories and techniques of teaching sports. Mechanical principles of efficient movement will be analyzed. Emphasis will be on research related to competitive performance. Specialists in several areas of coaching will serve as guest panelists in this course.

H.E. 521 *Administrative Supervision of Interschool and Intramural Athletics* 2 s. c.
The organization and administration of athletic and intramural programs including the theory, principles, and objectives at various levels of competitions. Job specifications of athletic and intramural directors and the delegation and assumptions of responsibilities will be given detailed consideration. Practical operating policies and procedures for athletic administrators will serve as a guide for this course.

H.E. 530 *Physiological and Psychological Bases of Motor Activity* 2 s. c.
A course devoted to the study and analysis of scientific data related to the selection, value, and techniques of instruction in physical education activities. Major emphasis will be on the basic scientific approaches to motor learning and the development of skill patterns. Prerequisites: Anatomy and Physiology I and II, and Applied Physiology or their equivalents.

H.E. 531 *Adaptive Physical Education Workshop* 2 s. c.
The recognition of the atypical child as part of a total teaching situation. The nature and extent of common handicaps will be studied. Emphasis will be based upon positive application of activities in the physical education field to handicapped children individually and in groups. Students will be placed in the positions of assistant instructors in programs for handicapped children. Activities will include swimming, sports, and games. Prerequisites: Undergraduate psychology, anatomy and physiology courses.

H.E. 540 *School Health Problems* 2 s. c.
A course designed as in-service training to study the current school health problems by using the Case Technique Method. A wide variety of materials, methods, and resources will be utilized in working on these problems. Prerequisites: One year's teaching experience or equivalent.

H.E. 541 *School-Community Health Education Workshop* 3 s. c.
A study of common problems in the home, community, and school health education areas. The five-point program follows: to provide in-service training in health education; to stimulate and promote an effective follow-up program in health services; to coordinate the efforts of allied health agencies; to stimulate and promote interest in local health units; and to develop an awareness of the place of mental health in the total health program of the home-school-community.

H.E. 550 *Foundations and Principles of Health, Physical Education, and Recreation* 2 s. c.
The basic approach to health, physical education, and recreation through the study of past and contemporary philosophies, principles, objectives, and trends.

H.E. 560 *Contemporary Problems in Health, Physical Education, and Recreation* 2 s. c.
An overview of the problems in teaching health, physical education, and recreation with specific relationship to in-service aspects. Emphasis will be placed on the factors and variables which influence solutions to these problems.

H.E. 561 *Measurement and Evaluation in Health, Physical Education, and Recreation* 2 s. c.
The study of statistical and evaluative procedures and their application to the field of health, physical education and recreation.

H.E. 562 *Administrative and Supervisory Practices in Health, Physical Education and Recreation* 2 s. c.

The nature and extent of the positions of directors or supervisors of health, physical education and recreation. The job specifications will be defined and operational principles and procedures will be developed.

H.E. 570 *Curriculum Developments in Health and Physical Education* 2 s. c.

Contemporary trends in health and physical education curricula at the elementary, secondary and college levels. Extensive surveys, reports, and analyses of curriculum practices will be applied to the construction of health and physical education programs.

H.E. 580 *Contemporary Practices in Safety Education* 2 s. c.

A course designed to evaluate and interpret research studies and practices affecting the teaching of safety education in schools and colleges.

H.E. 591 *Seminar in Health, Physical Education and Recreation* 2 s. c.

To be taken concurrently with the development of a problem or a thesis. (Admission by approval of major professor and the Director of Health, Physical Education, and Recreation.)

H.E. 592 Research Project 1 - 3 s. c.

H.E. 593 Thesis 3 s.c .

WITHDRAWALS

Any student withdrawing from a class without official authorization is automatically disqualified from the graduate program. He can be admitted to further graduate study only through application to the Graduate Committee.

EXAMINATIONS

As noted in the requirements for admission, examinations vary according to the classification of the student; e.g., degree candidates must pass specific comprehensive examinations. Every graduate student must accept responsibility for knowledge of the examinations required of him. The beginning student can determine the examinations required of him by examining the information listed below and by conferring with his department chairman. In no case shall the student assume that his adviser, major field professor, or graduate program official will notify him.

All students working for a degree are required to take four examinations; the Professional Background Examination, the General Culture Comprehensive Examination, the Admission to Degree Candidacy Examination, and the Area of Specialization Examination. In addition, however, some students will be required to take a general background examination.

An explanation of the examinations and the conditions under which they will be required follows:

1. *Professional Background Examination* — The Professional Background examination is constructed, administered and evaluated by the Department of Education. As the name implies, it is designed to evaluate the candidate's knowledge of the teaching profession. This examination is given in conjunction with the course entitled "Seminar in Educational Foundations."

Because this examination is furnished and graded by an outside agency, a fee of $5.50 is required.

2. *The General Culture Comprehensive Examination* — Every student working for a degree must take as part of the course entitled "Seminar in the Human-

ities" the General Culture Comprehensive Examination. This examination evaluates the student's background in those areas which are commonly termed "humanities." The results of this examination are used for diagnostic purposes.

3. *The Admission to Degree Candidacy Examination* — The Admission to Degree Candidacy Examination is constructed, administered and evaluated by the student's major department. This examination must be taken, as stated elsewhere, sometime between the acquisition of six and fifteen semester credits. This examination is designed to determine whether the student is to be permitted to work for a degree. The examination is broad and comprehensive in nature, with the basic purpose of evaluating the student's knowledge and general competency in his major field.

The Graduate Record Examination or some similar test is given as part of this examination.

4. *The Area of Specialization Examination* — Sometime after the acquisition of twenty semester credits, the student may take the Area of Specialization examination which is required of all candidates for the degree.

The Area of Specialization examination is a comprehensive examination over the student's major field. The examination is constructed, administered, and evaluated by the student's major department. All details of the Area of Specialization examination are the province of the major department concerned. Degree candidates are urged to confer with their advisers concerning this examination at the earliest possible date.

The Area of Specialization Examination is usually given after the student completes his research report or thesis.

5. *General Background Examination* — Applicants for graduate courses who, in the opinion of the department concerned, have inadequacies in their undergraduate programs, may be required to take an examination to demonstrate adequacies of general background information. The nature of this examination will be explained to the candidate by his major department.

ADVISORY SYSTEM

The applicant for admission to the graduate program should think of the chairman of his department as his major adviser until such time as an adviser is assigned him.

As soon as the applicant has declared his plans to the chairman of his major department, he will be assigned as the advisee of a professor in his major field.

The student should think of his adviser as a counselor and as a graduate program official. The adviser must approve the student's course selections, he must guide the student in making decisions regarding examinations; and he must check the student's work against graduate program requirements. Although the adviser will help the student in every way possible, the student, nonetheless, must remember that the responsibility of completing graduate work is primarily his.

LIBRARY

Graduate students are entitled to the use of library facilities under the conditions prevailing in the undergraduate program. The student, therefore, should familiarize himself with library regulations at the earliest possible date.

Because many graduate students are on campus for only one day each week, some special privileges are granted in the borrowing of books. The graduate student however, must realize his obligation to conform with all library regulations.

HOUSING FACILITIES

Because this college rarely has any full time graduate students during the fall and spring semesters, no provisions for housing for graduate students are made for those semesters. Graduate students attending the summer session may obtain housing in the college dormitories at the usual fees charged to undergraduates.

Graduate students living on campus during the summer sessions are subject to all officially stated regulations concerning housing and related matters.

CULTURAL OPPORTUNITIES

The graduate student should avail himself of the cultural opportunities on campus and in the immediate vicinity. The college sponsors All Star Programs, lectures, entertainments, and other significant cultural activities. The immediate vicinity is rich in historical significance and other cultural advantages. Also, the student will find easy access to Philadelphia and its many museums, libraries, and similar facilities.

EXPENSES

The charge for tuition in the Graduate Program is $20 per semester hour of credit.

Graduate students desiring housing facilities at the College during the summer sessions may procure such facilities at the regular rates listed in the official catalogue.

All fees are due and payable on the day of registration, after which the late fee is applicable.

Graduate students are also required to pay any fees (activity fee, library fines, etc.) required of other summer school students.

All fees are subject to change without notice.

Students in the music curriculum are subject to the schedule of fees listed below.

Instruction

Piano, Organ, Instrument or Voice
½ hour private lesson ..... $55.00 per semester

Instrument class or Ensemble (minimum class — six)
2 hours per week ..... $35.00 per semester

Rentals

Any Band or Orchestra Instrument ..... $1.00 per week
(minimum charge — $3.00)

Practice Time

Piano Room — 2 hours per day ..... $1.00 per week
(minimum charge — $3.00)

Organ Room — 2 hours per day ..... $1.50 per week
(minimum charge — $4.50)

Instrumental Room — 2 hours per day ..... $ .50 per week
(minimum charge — $1.50)

(The lesson fees are in addition to the $20.00 semester hour credit fee.)

REFUNDS

1. No portion of the tuition fee shall be refunded if the student has attended one-third or more than one-third of the class periods scheduled during a given semester or session.
2. If a student withdraws from a course, for approved reasons, before one-third of the scheduled class periods have been completed, the student shall then be entitled to a refund of one-half of the tuition fees paid.
3. Refunds will not be made to students who are suspended or dismissed or to students who drop courses without the approval of the Director of Graduate Studies.

MARKING SYSTEM

The marking system employed in the graduate program is the same as that of the undergraduate program.

A — Superior
B — Above average
C — Average
D — Passing
F — Failure
I — Incomplete

The following restrictions are enforced in the marking system: (1) the student must maintain a general average of at least 2.5; (2) grades lower than "C" are not acceptable in satisfying degree requirements; (3) courses which, for some valid reason (unavoidable absence during final examinatin, etc.), are not completed by the end of a given semester, must be completed before the close of the succeeding semester unless the Graduate Committee grants an individual exception this requirement.

RESIDENCE REQUIREMENTS

All courses given by the Division of Graduate Studies are taught on this campus by members of the Graduate Program faculty. Therefore, students in this graduate program should not expect to take off-campus or extension courses.

This college will accept in transfer only courses taken in residence at other approved graduate schools or courses taught by regular members of the full-time faculty of other approved graduate schools at off-campus centers.

TIME LIMIT

All requirements for the graduate degree, i.e., Master of Education, must have been satisfied within a period of six years before the actual date of receiving the degree. In unusual cases, e.g., prolonged illness, the Graduate Committee may make minor exceptions. In no instance, however, should the student assume that such exceptions will be made routinely.

The existence of the six-year time limit makes imperative the settling of all details regarding the research report or thesis and similar matters at the earliest possible date.

REPORTS

Official reports are issued immediately after the termination of each semester for work taken during that semester. The student should consider these reports as an official record of his standing in the graduate program. Students should check these reports against grade requirements and other regulations pertinent to their particular case. When consulting with faculty advisers, students should have these reports at hand in order to facilitate questions which the adviser may have.

ABSENCES

Applicants for graduate courses should realize at the outset the importance of attending all classes. However, because the Graduate Committee realizes that emergencies may arise, a policy on absences has been constructed.

For courses meeting once a week, the student is permitted a maximum of two absences during the semester. In no case should these absences be thought of as "cuts." They should be considered, rather, as allowances for emergency conditions.

No absences are permitted during the summer session.

The student is held fully responsible for all work required for courses taken. Absences from class, therefore, do not constitute a valid reason for exemption from course responsibilities. Students absent from examinations for valid reasons should contact the professor concerned as early as possible in order to make up the examination.

CLASS HOURS

All classes for the graduate program are scheduled during the late afternoon, evening, Saturdays, and summer sessions. As enrollment warrants, the number of classes given during the regular academic year is adjusted accordingly. Most graduate courses, however, are given primarily during the summer sessions.

TRANSCRIPTS

Students wishing transcripts of graduate work at West Chester may obtain such transcripts by communicating directly with the Office of the Registrar. The regulations pertaining to undergraduate transcripts hold for the graduate program also, i.e., students should allow a minimum of one week in requesting transcripts; requests should be made in writing; and all pertinent information (full name, maiden name, curriculum, dates etc.) should be given.

The cost is $1.00 per transcript. Checks should be made payable to the Commonwealth of Pennsylvania.

SUSPENSION OF CLASSES BECAUSE OF WEATHER

The official calendar for the Graduate Program lists the class meeting dates for each session. This calendar is distributed to faculty and posted on the official bulletin boards every semester.

All classes meet on these days, regardless of weather conditions. However, this policy has been instituted with the understanding that students need not take undue risks in order to travel.

Students absent because of weather conditions must assume responsibility for all work missed.

PLACEMENT SERVICE

Every year the College Placement Service is notified of many positions of all types on all levels of instruction. Because many of these positions offer unusual opportunities for professional advancement, graduate students are encouraged to use the services of the Placement Office.

All students pursuing graduate work at West Chester are eligible for the use of limited services provided by the Placement Service. Students who have completed less than 15 semester credits have access to the listings of vacancies. Students who hold undergraduate degrees from West Chester and/or have completed 15 semester

credits of graduate work are eligible for the full services of the Placement Service. The term "full services" includes registration, development of a complete set of credentials, and mailing of credentials to prospective employers.

There is no charge for the use of the Placement Service. Students wishing further information should visit the Placement Office. The office is open from 9 - 5 on weekdays and from 9 - 12 on stated Saturdays.

GRADUATE FACULTY

Anthony A. Angeloni, B.S., M.Ed., Ed.D. .....Associate Professor of Education
Alexander Antonowich, B.S., M.A., Ed.D. .....Professor of Music
Dorothy D. Bailey, B.A., M.A., Ph.D. .....Professor of English
Michael F. Bannon, B.S., M.A., Ed.D. .....Professor of Education
Harold W. Benda, B.A., M.A., Ed.D. .....
.....Professor of Education and Chairman of the Dept. of Education
Gertrude W. Bernard, B.F.A., M.Ed. .....Associate Professor of Music
Thomas Elliott Berry, A.B., A.M., Ph.D. .....
..... Professor of English and Director of Graduate Studies
James A. Binney, B.A., M.A., Ph.D. .....Professor of English
James B. Bonder, B.A., M.A., Ed.D. .....Professor of Education
Robert Carl, B.S., B.M., M.M. .....Assistant Professor of Music
Robert E. Carlson, B.A., M.A., Ph.D. .....Professor of History
Paul E. Carson, B.S., M.F.A. ..... Associate Professor of Music
Frank T. Cheesman, B.Mus., M.Mus., Ed.D. .....Professor of Music
John W. Clokey, B.S., M.Ed. .....Associate Professor of English
Edwin B. Cottrell, B.S., M.Ed., Ed.D. ....Professor of Health & Physical Education
Alvin B. Davis, B.S., M.A. ....Associate Professor of Health & Physical Education
Greta DeLong, A.B., M.A., Ph.D. .....Associate Professor of Education
John E. C. Dorchester, B.A., M.A., Ph.D. .....Professor of Physiology
Mark M. Evans, B.Ph., M.Ed., Ph.D. .....Professor of Education
Edward G. Everett, B.S., M.A., Ph.D. .....Professor of History
Albert E. Filano, B.S., M.S., Ph.D. .....
.....Professor of Mathematics and Chairman of the Dept. of Mathematics
Byron Y. Fleck, B.A., M.A., Ph.D. .....Professor of History and
Political Science and Chairman of the Dept. of Social Studies
Arnold Fletcher, B.S., M.Ed., Ed.D. .....Professor of Music
Robert B. Gordon, B.Sc., M.Sc., Ph.D. .....
.....Professor of Botany and Chairman of the Dept. of Science
Miriam S. Gottlieb, B.A., M.A. .....Associate Professor of Music
John W. Gutscher, B.S., M.A. .....Associate Professor of Music
Clifford H. Harding, A.B., M.A., Ph.D. ..Professor of History and Political Science
Arthur S. Hawthorne, B.S., M.A. .....Associate Professor of Geography
Julius M. Hill, B.S., M.A., Ph.D. .....Professor of Education
Constantine Johns, B.S., M.A., Ed.D. .....Professor of Music
Arthur E. Jones, B.S.Mus., M.A., Ph.D. .....Professor of Music
Alvin S. Keinard, B.A., M.Ed., Ed.D. .....
.....Professor of Geography and Chairman of the Dept of Geography
George Langdon, B.S., M.S., Ph.D. .....Professor of Geography
Melvin M. Lorback, B.S., M.S. ..Associate Professor of Health & Physical Education
Mary M. Maneval, B.A., M.A., Ph.D. .....Professor of Sociology
Charles M. Micken, B.S., M.S., Ed.D. .....Professor of Education
S. Powell Middleton, B.S., M.A. .....Assistant Professor of Music
Frank E. Milliman, B.N.S., A.B., A.M. .....Associate Professor of Mathematics
Lloyd C. Mitchell, B.Mus., M.Mus., Ed.D. .....
.....Professor of Music and Chairman of the Dept. of Music
Vernon H. Morrill, B.S., M.A. .....Associate Profesor of Mathematics
Edward Norris, B.S., M.S. ....Associate Professor of Health and Physical Education
Francis J. Reynolds, B.S., Ph.D. .....Associate Professor of Chemistry
Russell K. Rickert, B.S., M.S., Ed.D. .....Associate Professor of Physics

Alfred D. Roberts, B.A., M.A., Ph.D. .....Professor of Modern Foreign Languages
Eugene W. Schooler, B.A., M.B.A., M.A., Ph.D. .....Professor of Economics
Harold Shaffer, A.B., Litt.M. .....Associate Professor of History
Jane Sheppard, B.M., M.A. .....Associate Professor of Music
Kenneth C. Slagle, B.A., A.M., Ph.D. .....
.....Professor of English and Chairman of the Dept. of English
Russell L. Sturzebecker, B.S., M.Ed., Ed.D. Professor of Health & Physical Education
Chairman of the Dept. of Health & Physical Education
Roy D. Sweet, B.S., M.M. .....Associate Professor of Music
Willard J. Trezise, B.S., M.S., Ph.D. .....
.....Professor of Physiology and Vice Chairman of the Dept. of Science
Edward T. Twardowski, B.S., M.S., Ed.D. .....
Professor of Health & Physical Education
William F. Vollbrecht, B.A., B.S., M.A., Ph.D. .....Professor of History
Richard P. Weagley, B.S., M.Ed., D.Ed. .....Professor of Education
Harry Wilkinson, B.S., M.Ed., Ph.D. .....Professor of Music
Thomas B. Williams, B.S., Ed.M., Ed.D. .....Associate Professor of Education
James J. Wright, B.S., M.Ed., Ph.D. .....Professor of Music
Edwin Youmans, B.A., M.A., Ph.D. .....Professor of Health & Physical Education

CALENDAR

The Summer Sessions
1962

PRE-SESSION

Registration: Undergraduate	8:30-11:30 A.M.,	Monday, June 4
Registration: Graduate	3:00- 5:00 P.M.,	Monday, June 4
Classes Begin: Undergraduate	1:30 P.M.,	Monday, June 4
Classes Begin: Graduate	7:00 P.M.,	Monday, June 4
Classes End		Friday, June 22

REGULAR SESSION

Registration: Undergraduate	8:30- 3:30 P.M.,	Monday, June 25
Registration: Graduate	8:30-11:30 A.M.,	Monday, June 25
Classes Begin: Undergraduate	8:00 A.M.,	Tuesday, June 26
Classes Begin: Graduate	8:00 A.M.,	Tuesday, June 26
No Classes		Wednesday, July 4
Summer Commencement Exercises		Thursday, August 2
Classes End		Friday, August 3

POST SESSION

Registration: Undergraduate	8:30- 3:30 P.M.,	Monday, August 6
Registration: Graduate	8:30-11:00 A.M.,	Monday, August 6
Classes Begin: Undergraduate	1:30 P.M.,	Monday, August 6
Classes Begin: Graduate	1:30 P.M.,	Monday, August 6
Classes End		Friday, August 24

FALL

Registration		Saturday, September 7
Classes Begin		Monday, September 9
Semester Ends		Friday, January 17

SPRING

Registration		Saturday, January 18
Classes Begin		Monday, January 20
Semester Ends		Sunday, May 24

FALL — 1962

REQUIRED COURSES

H.E.	590	Methods and Materials of Research (health education majors only)
Mus.	500	Methods and Materials of Research (music education majors only)
Hu.	500	Seminar in the Humanities

EDUCATION

Ed.	506	The Junior High School
Ed.	532	Photography for Teachers
Ed.	551	Seminar in Child Development and Behavior

ENGLISH

Eng.	512	American Literary Criticism
Eng.	524	British and Continental Short Story

GEOGRAPHY

Geog.	547	The Geography of the Soviet Union

HEALTH AND PHYSICAL EDUCATION

H.E.	503	Advanced Aquatics
H.E.	590	Methods and Materials of Research

MATHEMATICS

Math	523	Introduction to Mathematical Probability

SOCIAL STUDIES

Hist.	512	The United States as a World Power
Hist.	520	Early European History

SCIENCE

Sci.	525	Introduction to Biochemistry
Sci.	595	Elementary Science Curriculum and Instruction

MUSIC

Mus.	507	Vocal Literature
Mus.	517	String Pedagogy
Mus.	525	Woodwind Literature
Mus.	562	Form in Music
Mus.	588	Seminar in Music Education
Mus.	600	Research Report
Mus.	610	Thesis

APPLIED MUSIC

Mus.	531-569	Opera Workshop Ensemble and/or Chorus or Orchestra or Band Advanced Piano (individual lessons) Advanced Organ (individual lessons) Advanced Voice (individual lessons) Advanced Instruments (individual lessons)

SPRING — 1963

EDUCATION

Ed.	501	Foundations of Reading Instruction
Ed.	550	Advanced Educational Psychology
Ed.	553	Seminar in Child Development and Behavior (2nd part of 551-553 sequence)
Ed.	580	History and Philosophy of Education

ENGLISH

Eng. 524 British and Continental Short Story

GEOGRAPHY

Geog. 545 Geography of Africa

HEALTH AND PHYSICAL EDUCATION

H.E. 501 Advanced Rhythmical and Foreign Gymnastics
H.E. 550 Foundations and Principles of Health, Physical Education and Recreation

MATHEMATICS

Math 524 Mathematical Statistics

SOCIAL STUDIES

Hist. 523 Contemporary World Affairs
Soc. 531 Social Pathology

SCIENCE

Sci. 532 Space Science
Sci. 591 History of Biology

REQUIRED COURSE FOR MUSIC MAJORS

Mus. 510 Current Trends in Music Education

ELECTIVES

Mus. 506 Instrumental Literature
Mus. 518 Vocal Pedagogy
Mus. 521 Advanced Counterpoint
Mus. 531-569 Opera Workshop, Ensemble and/or Chorus or Orchestra or Band, Advanced Piano, Advanced Organ, Advanced Voice, or Advanced Instruments
Mus. 583 Music in the Baroque Period
Mus. 589 Seminar in Music Education
Mus. 600 Research Report
Mus. 610 Thesis

Elective for Elementary Curriculum:
Mus. 571 Keyboard Activities for the Classroom Teacher

Elective for all Curricula:
Mus. 560 Study and Appreciation of the Opera

SUMMER — 1963

Pre-Session — June 4-21 — (Classes meet from 7:00-9:30 P.M.)

Required Courses

Methods and Materials of Reserach (Music Education Majors)

Education

Production of Projected Still Materials
Guidance in the Elementary School

English

French Literature in Translation

Geography

The Geography of Mexico and Middle America

Health and Physical Education

School Health Problems
Contemporary Problems in Health Physical Education and Recreation
Curriculum Development in Health and Physical Education

Mathematics
Educational Statistics

Social Studies
Comparative Economic Systems

Science
Developmental Anatomy

Music
Music Education in the Secondary Schools

Regular Session — June 25-August 3 — (Classes meet from 8:00-12:00)

Required Courses — All Curricula
Seminar in the Humanities

Education
Educational Foundations
Curriculum Problems in Elementary Education
Research Seminar
Methods and Materials of Research
(Elementary Education Majors Only)

English
English Literary Movements
Problems of Speech Correction

Geography
Geomorphology

Health and Physical Education
Dance in Education
Elementary Physical Education Workshop
Advanced Aquatics
Advanced Coaching
Physiological and Psychological Bases of Motor Activity
School and Community Health Education Workshop
Measurement and Evaluation in Health, Physical Education, and Recreation

Mathematics
Higher Algebra
Theory of Numbers
Advanced Educational Statistics

Social Studies
Historical Sociology
Cultures of the Non-Western World

Science
Experimental Biology
Elementary Science Curriculum and Instruction

Music
Thesis or Research Report
Administration of Public School Music
Brass Literature
Piano Literature
Contemporary Music
Music Appreciation and the General Music Program
Marching Band Techniques and Materials
Advanced Composition and/or Orchestration

Choral Literature
Advanced Piano or Organ
Advanced Voice
Vocal Ensemble and/or Chorus
Opera Workshop
Advanced Instruments
Ensemble and/or Orchestra or Band
Advanced Instrumental Conducting
Advanced Class Instruction in Instruments
Vitalizing the Elementary Music Program (Elementary education elective)
Teaching of Music Appreciation in the Elementary Grades (Elementary education elective)
Study and Appreciation of the Symphony (Elective for all Students)

Post Session — August 6-August 17 — (Classes meet 8:00-9:30 — 10:30-12:00)

Required Courses
Seminar in the Humanities

Education
Occupational, Educational, and Social Information in Guidance

English
Nineteenth Century Drama

Geography
Conservation Workshop

Health and Physical Education
Foundations and Principles of Health, Physical Education
Administrative and Supervisory Practices in Health, Physical Education and Recreation

Mathematics
Arithmetic: Methods, Curriculum and Research

Social Studies
Seminar in American Constitutional History

Science
Economic Entomology

Music
Current Trends in Music Education
String Literature and Pedagogy